OhioEPA

State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

11/28/05

CERTIFIED MAIL

RE: Final Title V Minor Permit Modification Chapter 3745-77 permit

03-02-02-0012
Premcor Refining Group
Gary L. Vonderembse
1150 South Metcalf Street
Lima, OH 45804

Dear Gary L. Vonderembse:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully.

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. It is also requested by the Director that a copy of the appeal be served upon the Environmental Enforcement Section of the Office of the Attorney General. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

If you have any questions, please contact Northwest District Office.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

cc: Northwest District Office
File, DAPC PMU

State of Ohio Environmental Protection Agency

FINAL TITLE V MINOR PERMIT MODIFICATION

Original Effective Date: 07/15/04	Expiration Date: 07/15/09	Modification Effective Date: 11/28/05

This document constitutes issuance of a Title V permit for Facility ID: 03-02-02-0012 to:
The duration of this permit will be five years.

Premcor Refining Group
1150 South Metcalf Street
Lima, OH 45804

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

(No emissions units)

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
(419) 352-8461

Ohio Environmental Protection Agency

Joseph P. Koncelik
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Record Keeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.III of Part III of this Title V permit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c. The permittee shall submit required reports in the following manner:

i. **All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:**

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year in accordance with General Term and Condition A.1.c.ii below; and each report shall cover the previous calendar quarter.

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) constitutes a violation of an emission limitation (or control requirement) and, therefore, is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those

reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

ii. **Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.IV of Part III of this Title V permit or, in some cases, in Part II of this Title V permit, all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this General Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this General Term and Condition.

See B.6 below if no deviations occurred during the quarter.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

iii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted in the following manner:**

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; General Terms and Conditions: A.2, A.3, A.4, A.6.e, A.7, A.12, A.14, A.18, A.19, A.20, and A.22 of Part I of this Title V permit, as well as any deviations from the requirements in Section A.V or A.VI of Part III of this Title V permit**,** and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six

calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in Part II.A of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with General Term and Condition A.1.c.ii above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

iv. Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

v. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

2. Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in General Term and Condition A.1.c.i above.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Risk Management Plans

If applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. ("Act"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

a. a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or

b. as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.
(Authority for term: OAC rule 3745-77-07(A)(5))

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
(Authority for term: OAC rule 3745-77-07(A)(6))

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

f. Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable upon final issuance of all applicable OAC Chapter 3745-35 operating permits and/or registrations for all subject emissions units located at the facility and:

   i. the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or

   ii. the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or

   iii. a combination of i. and ii. above.

   The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.
   (Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.
(Authority for term: OAC rule 3745-77-07(A)(8))

8. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.
(Authority for term: OAC rule 3745-77-07(A)(9))

9. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.
(Authority for term: OAC rule 3745-77-07(A)(10))

10. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

11. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.
(Authority for term: OAC rule 3745-77-07(B))

12. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:

i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted (i.e., postmarked) on or before April 30th of each year during the permit term.

ii. Compliance certifications shall include the following:

(a) An identification of each term or condition of this permit that is the basis of the certification.

(b) The permittee's current compliance status.

(c) Whether compliance was continuous or intermittent.

(d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.

(e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

13. Permit Shield

a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed

under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).
(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

15. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.
(Authority for term: OAC rule 3745-77-07(G))

16. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.

b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.
(Authority for term: OAC rule 3745-77-07(I))

17. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.
(This term is provided for informational purposes only.)

18. Insignificant Activities or Emissions Levels

Each IEU that has one or more applicable requirements shall comply with those applicable requirements.
(Authority for term: OAC rule 3745-77-07(A)(1))

19. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.
(Authority for term: OAC rule 3745-77-07(A)(1))

20. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.
(Authority for term: OAC rule 3745-77-07(A)(1))

21. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the responsible official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.
(Authority for term: OAC rule 3745-77-01)

22. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

B. *State Only Enforceable Section*

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

2. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

3. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

4. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

5. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

6. Additional Reporting Requirements When There Are No Deviations of <u>Federally Enforceable</u> Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations

occurred during that quarter. The reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

a. where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in General Term and Condition A.1.c.ii; or

b. where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; or

c. where the company's responsible official has certified that an emissions unit has been permanently shut down.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable Section

1. Nitrogen Oxides (NOx) Budget Trading Program OAC Chapter 3745-14

1.a Facility Code - 880083

1.b The following regulated emissions unit is subject to the applicable requirements specified in OAC Chapter 3745-14 and the annual NOx allowance allocations listed below:

Emissions Unit	Annual Allowance for Calendar Years 2004 through 2007
B026 - CE Power Boiler (PR 175007)	16

1.c The emissions unit identified in Section A.1.b above is a NOx budget unit under OAC rule 3745-14-01(C)(1)(b).
[OAC rule 3745-14-01(C)(1)]

1.d NOx allowances for units commencing operation on the dates specified in OAC rule 3745-14-05(C)(4) shall be allocated from the new source set-aside in accordance with the provisions of OAC rule 3745-14-05(C)(4)(d).
[OAC rule 3745-14-05(C)(4)]

1.e The NOx authorized account representative shall submit a complete NOx budget permit application in accordance with the deadlines specified in paragraphs (B)(2) and (B)(3) of OAC rule 3745-14-03. The NOx authorized account representative shall also submit, in a timely manner, any supplemental information that the Director determines is necessary in order to review a NOx budget permit application and issue or deny a NOx budget permit.
[OAC rules 3745-14-01(E)(1)(a)(i), 3745-14-01(E)(1)(a)(ii), and 3745-14-03(B)(1)]

1.f Beginning May 31, 2004, the owners and operators of each NOx budget source and each NOx budget unit at the source shall hold NOx allowances available for compliance deductions under paragraph (E) of OAC rule 3745-14-06, as of the NOx allowance transfer deadline, in the unit's compliance account and the source's overdraft account in an amount not less than the total NOx emissions for the control period from the unit, as determined in accordance with OAC rule 3745-14-08, plus any amount necessary to account for actual utilization under paragraph (C)(5) of OAC rule 3745-14-05 for the control period.
[OAC rules 3745-14-01(E)(3)(a) and 3745-14-01(E)(3)(c)]

1.g NOx allowances shall be held in, deducted from, or transferred among NOx allowance tracking system accounts in accordance with OAC rules 3745-14-05, 3745-14-06, 3745-14-07, and 3745-14-09.
[OAC rule 3745-14-01(E)(3)(d)]

1.h A NOx allowance shall not be deducted, in order to comply with the requirement under paragraph (E)(3)(a) of OAC rule 3745-14-01, for a control period in a year prior to the year for which the NOx allowance was allocated.
[OAC rule 3745-14-01(E)(3)(e)]

1.i Each ton of NOx emitted in excess of the NOx budget emission limitation, as defined in OAC rule 3745-14-01(B)(2)(yy), shall constitute a separate violation of OAC Chapter 3745-14, the Clean Air Act, and applicable Ohio law. The owners and operators of a NOx budget unit that has excess emissions in any control period shall surrender the NOx allowances required for deduction under paragraph (E)(4)(a) of OAC rule 3745-14-06 and pay any fine, penalty, or assessment or comply with any other remedy imposed under paragraph (E)(4)(c) of OAC rule 3745-14-06.
[OAC rules 3745-14-01(E)(3)(b), 3745-14-01(E)(4)(a) and 745-14-01(E)(4)(b)]

1.j When recorded by the Administrator pursuant to OAC rules 3745-14-06 and 3745-14-07, every allocation, transfer, or deduction of a NOx allowance to or from a NOx budget unit's compliance account or the overdraft account of the source where the unit is located is deemed to amend automatically, and become a part of, any NOx budget permit of the NOx budget unit by operation of law without any further review.
[OAC rule 3745-14-01(E)(3)(h)]

1.k Except as provided below, the Director shall revise the NOx budget permit, as necessary, in accordance with OAC rule 3745-77-08. Each NOx budget permit is deemed to incorporate automatically the definitions of terms under paragraph (B) of OAC rule 3745-14-01 and, when recorded by the Administrator, in accordance with OAC rules 3745-14-06 and 3745-14-07, every allocation, transfer, or deduction of a NOx allowance to or from the compliance accounts of the NOx budget units covered by the permit or the overdraft account of the NOx budget source covered by the permit.
[OAC rules 3745-14-03(D)(2) and 3745-14-03(E)(1)]

1.l The owner or operator of a NOx budget unit shall comply with the prohibitions under OAC rule 3745-14-08(A)(5).
[OAC rule 3745-14-08(A)(5)]

1.m The owners and operators of the NOx budget unit shall keep on site at the source each of the following documents for a period of five years from the date the document is created: (This period may be extended for cause, at any time prior to the end of five years, in writing by the Director or Administrator.)

i. the account certificate of representation for the NOx authorized account representative for the NOx budget unit and all documents that demonstrate the truth of the statements in the account

certificate of representation, in accordance with paragraph (D) of OAC rule 3745-14-02, provided that the certificate and documents shall be retained on site at the source beyond such five-year period until such documents are superseded because of the submission of a new account certificate or representation changing the NOx authorized account representative;

ii. all emission monitoring information, in accordance with OAC rule 3745-14-08;

iii. copies of all reports, compliance certifications, and other submissions and all records made or required under the NOx budget trading program; and

iv. copies of all documents used to complete a NOx budget permit application and any other submission under the NOx budget trading program or to demonstrate compliance with the requirements of the NOx budget trading program.
[OAC rule 3745-14-01(E)(5)(a)(i) through (iv)]

1.n The permittee, and to the extent applicable, the NOx authorized account representative of the NOx budget unit, shall comply with the monitoring and reporting requirements as provided in OAC rule 3745-14-08 and in 40 CFR Part 75, Subpart H. For purposes of complying with such requirements the definitions in OAC rule 3745-14-01(B) and in 40 CFR 72.2 shall apply, and the terms "affected unit," "designated representative," and "continuous emission monitoring system" (or "CEMS") in 40 CFR Part 75 shall be replaced by the terms "NOx budget unit," "NOx authorized account representative," and "continuous emission monitoring system" (or "CEMS"), respectively, as defined in OAC rule 3745-14-01(B).
[OAC rule 3745-14-08(A)]

1.o The permittee shall operate and maintain equipment to continuously monitor and record nitrogen oxides emissions from these emissions units in units of the applicable standards. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software. This includes all systems required to monitor the NOx emission rate, NOx concentration, heat input rate, and stack flow rate, in accordance with 40 CFR Parts 75.71 and 75.72. The permittee shall comply with the initial and re-certification procedures of 40 CFR Part 75. The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous nitrogen oxides monitoring system has been certified in accordance with 40 CFR Part 75.

The letter of certification shall be made available to the Director upon request. The permittee shall maintain records of the following data obtained by the continuous nitrogen oxides monitoring system: emissions of nitrogen oxides in lb/mmBtu actual heat input on an hourly average basis, emissions of nitrogen oxides in lbs/hr, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments. Whenever the monitoring system fails to meet the quality assurance or data validation requirements of 40 CFR Part 75, data shall be substituted using the applicable procedures in Subpart D, Appendix D, or Appendix E of 40 CFR Part 75.

[OAC rules 3745-14-01(E)(2)(a), 3745-14-01(E)(5)(a)(ii), 745-14-08(A)(2)(a) through (A)(2)(d), 3745-14-08(B)(1), and 3745-14-08(C)(1)]

1.p The permittee shall comply with the monitoring plan requirements of 40 CFR Part 75.62, except that the monitoring plan is only required to include information required by 40 CFR Part 75, Subpart H.
[OAC rule 3745-14-08(E)(2)(b)]

1.q The NOx authorized account representative of the NOx budget unit shall submit the reports and compliance certifications required under the NOx budget trading program, including those under OAC rules 3745-14-04 and 3745-14-08, to the Director and Administrator.
[OAC rule 3745-14-01(E)(4)(b)]

1.r Each submission under the NOx budget trading program shall be submitted, signed, and certified by the NOx authorized account representative for each NOx budget source on behalf of which the submission is made. Each such submission shall include the following certification statement by the NOx authorized account representative:

"I am authorized to make this submission on behalf of the owners and operators of the NOx budget sources or NOx budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

If the NOx authorized account representative for a NOx budget unit subject to an acid rain emission limitation who signed and certified any submission that is made under Subpart F or G of 40 CFR Part 75 and which includes data and information required under OAC rule 3745-14-08 or Subpart H of 40 CFR Part 75 is not the same person as the designated representative or the alternate designated representative for the unit under 40 CFR Part 72, then the submission shall also be signed by the designated representative or the alternate designated representative.
[OAC rules 3745-14-02(A)(5) and 3745-14-08(E)(1)(b)]

1.s The NOx authorized account representative shall submit quarterly reports covering the period May 1 through September 30 of each year and including the data described in 40 CFR 75.74(c)(6). The NOx authorized account representative shall submit such quarterly reports, beginning with the calendar quarter covering May 1 through June 30, 2003. The NOx authorized account representative shall submit each quarterly report to the Administrator within thirty days following the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in 40 CFR Part 75, Subpart H.
[OAC rules 3745-14-08(E)(4)(b) and 3745-14-08(E)(4)(c)(i)]

1.t The NOx authorized account representative shall submit to the Administrator a compliance certification in support of each quarterly report based on a reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The compliance certification shall state that:

i. the monitoring data submitted were recorded in accordance with the applicable requirements of OAC rule 3745-14-08 and 40 CFR Part 75, including the quality assurance procedures and specifications; and

ii. for a unit with add-on NOx emission controls and for all hours where data are substituted in accordance with 40 CFR Part 75.34(a)(1), the add-on emission control were operating within the range of parameters listed in the quality assurance program under Appendix B of 40 CFR Part 75 and the substitute values do not systematically underestimate the NOx emissions.
[OAC rule 3745-14-08(E)(4)(d)(i) and (ii)]

1.u The NOx authorized account representative for a NOx budget unit shall submit written notice of monitoring system certification and re-certification test dates to the Director and the Administrator in accordance with 40 CFR Part 75.61. The NOx authorized account representative shall submit a certification application to the Administrator, U.S. EPA, Region V Office, and the Director within forty-five days after completing all initial or re-certification tests required under paragraph (B) of OAC rule 3745-14-08, including the information required under Subpart H of 40 CFR Part 75.
[OAC rules 3745-14-08(D) and 3745-14-08(E)(3)]

1.v For each control period in which one or more NOx budget units at a source are subject to the NOx budget emission limitation, the NOx authorized account representative of the source shall submit to the Director and the Administrator, by November 30 of that year, a compliance certification report for each source covering all such units. The NOx authorized account representative shall include the following elements in the compliance certification report, in a format prescribed by the Administrator, concerning each unit at the source and subject to the NOx budget emission limitation for the control period covered by the report:

i. identification of each NOx budget unit;

ii. at the NOx authorized account representative's option, the serial numbers of the NOx allowances that are to be deducted from each unit's compliance account under paragraph (E) of OAC rule 3745-14-06 for the control period;

iii. at the NOx authorized account representative's option, for units sharing a common stack and having NOx emissions that are not monitored separately or apportioned in accordance with OAC rule 3745-14-08, the percentage of allowances that is to be deducted from each unit's compliance account under paragraph (E)(5) of OAC rule 3745-14-06; and

iv. the compliance certification under paragraph (A)(3) of OAC rule 3745-14-04.
[OAC rules 3745-14-04(A)(1) and 3745-14-04(A)(2)]

1.w In the compliance certification report under Section A.1.v.iv above, the NOx authorized account representative shall certify, based upon reasonable inquiry of those persons with the primary responsibility for operating the source and the NOx budget units at the source in compliance with the NOx budget trading program, whether each NOx budget unit for which the compliance certification is submitted was operated during the calendar year covered by the report in compliance with the requirements of the NOx budget trading program applicable to the unit, including all the following:

i. whether the unit was operated in compliance with the NOx budget emission limitation;

ii. whether the monitoring plan that governs the unit has been maintained to reflect the actual operation and monitoring of the unit, and contains all information necessary to attribute NOx emissions to the unit, in accordance with OAC rule 3745-14-08;

iii. whether all the NOx emissions from the unit, or group of units (including the unit) using a common stack, were monitored or accounted for through the missing data procedures and reported in the quarterly monitoring reports, including whether conditional data were reported in the quarterly reports in accordance with OAC rule 3745-14-08, and if conditional data were reported, the permittee shall indicate whether the status of all conditional data has been resolved and all necessary quarterly report submissions have been made; and

iv. whether the facts that form the basis for certification under OAC rule 3745-14-08 of each monitor at the unit or group of units (including the unit) using a common stack, or for using an excepted monitoring method or alternative monitoring method approved under OAC rule 3745-14-08, if any, have changed. If a change is required to be reported under Section A.1.v.iv above, specify the nature of the change, the reason for the change, when the change occurred, and how the unit's compliance status was determined subsequent to the change, including what method was used to determine emissions when a change mandated the need for monitor re-certification.
[OAC rule 3745-14-04(A)(3)]

1.x The NOx authorized account representative shall submit a complete NOx budget permit renewal application for the NOx budget source covering the NOx budget units at the source in accordance with paragraph (E) of OAC rule 3745-77-08.
[OAC rule 3745-14-03(B)(3)(a)]

1.y The emission measurements recorded and reported in accordance with OAC rule 3745-14-08 shall be used to determine compliance by the unit with the NOx budget emission limitation under paragraph (E)(3) of OAC rule 3745-14-01.
[OAC rule 3745-14-01(E)(2)(b)]

1.z The permittee shall develop and maintain a written quality assurance/quality control plan for each continuous NOx monitoring system designed to ensure continuous valid and representative

readings of NOx emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on-site and available for inspection during regular office hours.
[OAC rules 3745-14-08(A)(2)(c) and 3745-14-08(A)(2)(d)]

2. [OAC rule 3745-21-09(M)(3)] Process Unit Turnarounds

2.a The permittee shall control the emissions of VOC from process unit turnarounds no later than the date specified in paragraph (C)(14) of rule 3745-21-04 of the Administrative Code by combusting the vapors as fuel gas or by flaring the vapors until the pressure in the process vessel is 19.7 pounds per square inch absolute or less.

2.b The permittee shall maintain records for a minimum of two years for each process unit turnaround. Such records shall include:

i. The date the unit was shut down;

ii. The approximate pressure of the vapors in the process vessel when the VOC emissions were first discharged to the ambient air; and

iii. The approximate total quantity of VOC emitted to the ambient air.

3. [OAC rule 3745-25] Emergency Episode Standards

3.a Any person responsible for the operation of a source of air contaminants which emits 0.25 tons per day or more of air contaminants for which air quality standards have been adopted shall prepare emission control action programs, consistent with good industrial practice and safe operating procedures, for reducing the emission of air contaminants into the ambient air during periods of an air pollution "Alert", air pollution "Warning", and air pollution "Emergency". Emission control action programs shall be designed to reduce or eliminate emissions of air contaminants into the ambient air in accordance with the objectives set forth in tables 1 to 5 of Chapter 3745-25 of the Administrative Code.

3.b Emission control action programs required by paragraph (a) of this rule shall be in writing and show the source of air contamination, the approximate amount of reduction of contaminants, the approximate time required to effect the program, a brief description of the manner in which the reduction will be achieved during each stage of an air pollution episode, and such other information as the director shall deem pertinent.

3.c Emission control action programs shall be filed with the director at the following times:

i Existing sources - shall file not later than six months after adoption of these rules;

ii. New sources - shall file with application for permit to operate.

3.d During a condition of an air pollution "Alert" air pollution "Warning", and air pollution "Emergency" emission control action programs required by paragraph (a) of this rule shall be made available on the premises to any person authorized to enforce the provisions of the emergency procedure.

3.e Emission control action programs as required by paragraph (A) of this rule shall be submitted to the director upon request within thirty days of the receipt of such request; such emission control action programs shall be subject to review and approval by the director. If, in the opinion of the director, such emission control action programs do not effectively carry out the objectives as set forth in table 1 to 5 of Chapter 3745-25 of the Administrative Code, the director may disapprove said emission control action programs, state his reason for disapproval and order the preparation of amended emission control action programs within the time period specified in the order.

4. 40 CFR Part 60, Subpart J -- Standards of Performance for Petroleum Refineries

[The following emissions units contained in this permit are subject to 40 CFR Part 60, Subpart J: B022, B024, B026, B027, P025 and P040.]

§60.100 Applicability, designation of affected facility, and reconstruction.

(a) The provisions of this subpart are applicable to the following affected facilities in petroleum refineries: fluid catalytic cracking unit catalyst regenerators, fuel gas combustion devices, and all Claus sulfur recovery plants except Claus plants of 20 long tons per day (LTD) or less. The Claus sulfur recovery plant need not be physically located within the boundaries of a petroleum refinery to be an affected facility, provided it processes gases produced within a petroleum refinery.

(b) Any fluid catalytic cracking unit catalyst regenerator or fuel gas combustion device under paragraph (a) of this section which commences construction or modification after June 11, 1973, or any Claus sulfur recovery plant under paragraph (a) of this section which commences construction or modification after October 4, 1976, is subject to the requirements of this subpart except as provided under paragraphs (c) and (d) of this section.

(c) Any fluid catalytic cracking unit catalyst regenerator under paragraph (b) of this section which commences construction or modification on or before January 17, 1984, is exempted from §60.104(b).

(d) Any fluid catalytic cracking unit in which a contact material reacts with petroleum derivatives to improve feedstock quality and in which the contact material is regenerated by burning off coke and/or other deposits and that commences construction or modification on or before January 17, 1984, is exempt from this subpart.

(e) For purposes of this subpart, under §60.15, the "fixed capital cost of the new components" includes the fixed capital cost of all depreciable components which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following January 17, 1984. For purposes of this paragraph, "commenced" means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

§60.101 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in Subpart A.

(a) *Petroleum refinery* means any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of petroleum or through redistillation, cracking or reforming of unfinished petroleum derivatives.

(b) *Petroleum* means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

(c) *Process gas* means any gas generated by a petroleum refinery process unit, except fuel gas and process upset gas as defined in this section.

(d) *Fuel gas* means any gas which is generated at a petroleum refinery and which is combusted. Fuel gas also includes natural gas when the natural gas is combined and combusted in any proportion with a gas generated at a refinery. Fuel gas does not include gases generated by catalytic cracking unit catalyst regenerators and fluid coking burners.

(e) *Process upset gas* means any gas generated by a petroleum refinery process unit as a result of start-up, shut-down, upset or malfunction.

(f) *Refinery process unit* means any segment of the petroleum refinery in which a specific processing operation is conducted.

(g) *Fuel gas combustion device* means any equipment, such as process heaters, boilers and flares used to combust fuel gas, except facilities in which gases are combusted to produce sulfur or sulfuric acid.

(h) *Coke burn-off* means the coke removed from the surface of the fluid catalytic cracking unit catalyst by combustion in the catalyst regenerator. The rate of coke burn-off is calculated by the formula specified in §60.106.

(i) *Claus sulfur recovery plant* means a process unit which recovers sulfur from hydrogen sulfide by a vapor-phase catalytic reaction of sulfur dioxide and hydrogen sulfide.

(j) *Oxidation control system* means an emission control system which reduces emissions from sulfur recovery plants by converting these emissions to sulfur dioxide.

(k) *Reduction control system* means an emission control system which reduces emissions from sulfur recovery plants by converting these emissions to hydrogen sulfide.

(l) *Reduced sulfur compounds* means hydrogen sulfide (H2S), carbonyl sulfide (COS) and carbon disulfide (CS2).

(m) *Fluid catalytic cracking unit* means a refinery process unit in which petroleum derivatives are continuously charged; hydrocarbon molecules in the presence of a catalyst suspended in a fluidized bed are fractured into smaller molecules, or react with a contact material suspended in a fluidized bed to improve feedstock quality for additional processing; and the catalyst or contact material is continuously

regenerated by burning off coke and other deposits. The unit includes the riser, reactor, regenerator, air blowers, spent catalyst or contact material stripper, catalyst or contact material recovery equipment, and regenerator equipment for controlling air pollutant emissions and for heat recovery.

(n) *Fluid catalytic cracking unit catalyst regenerator* means one or more regenerators (multiple regenerators) which comprise that portion of the fluid catalytic cracking unit in which coke burn-off and catalyst or contact material regeneration occurs, and includes the regenerator combustion air blower(s).

(o) *Fresh feed* means any petroleum derivative feedstock stream charged directly into the riser or reactor of a fluid catalytic cracking unit except for petroleum derivatives recycled within the fluid catalytic cracking unit, fractionator, or gas recovery unit.

(p) *Contact material* means any substance formulated to remove metals, sulfur, nitrogen, or any other contaminant from petroleum derivatives.

(q) *Valid day* means a 24-hour period in which at least 18 valid hours of data are obtained. A "valid hour" is one in which at least 2 valid data points are obtained.

§60.102 Standard for particulate matter.

Each owner or operator of any fluid catalytic cracking unit catalyst regenerator that is subject to the requirements of this subpart shall comply with the emission limitations set forth in this section on and after the date on which the initial performance test, required by §60.8, is completed, but not later than 60 days after achieving the maximum production rate at which the fluid catalytic cracking unit catalyst regenerator will be operated, or 180 days after initial startup, whichever comes first.

(a) No owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any fluid catalytic cracking unit catalyst regenerator:

(1) Particulate matter in excess of 1.0 kg/Mg (2.0 lb/ton) of coke burn-off in the catalyst regenerator.

(2) Gases exhibiting greater than 30 percent opacity, except for one six-minute average opacity reading in any one hour period.

(b) Where the gases discharged by the fluid catalytic cracking unit catalyst regenerator pass through an incinerator or waste heat boiler in which auxiliary or supplemental liquid or solid fossil fuel is burned, particulate matter in excess of that permitted by paragraph (a)(1) of this section may be emitted to the atmosphere, except that the incremental rate of particulate matter emissions shall not exceed 43.0 g/MJ (0.10 lb/million Btu) of heat input attributable to such liquid or solid fossil fuel.

§60.103 Standard for carbon monoxide.

Each owner or operator of any fluid catalytic cracking unit catalyst regenerator that is subject to the requirements of this subpart shall comply with the emission limitations set forth in this section on and after the date on which the initial performance test, required by §60.8, is completed, but not later than 60 days after achieving the maximum production rate at which the fluid catalytic cracking unit catalyst regenerator will be operated, or 180 days after initial startup, whichever comes first.

(a) No owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any fluid catalytic cracking unit catalyst regenerator any gases that contain carbon monoxide (CO) in excess of 500 ppm by volume (dry basis).

§60.104 Standards for sulfur oxides.

Each owner or operator that is subject to the requirements of this subpart shall comply with the emission limitations set forth in this section on and after the date on which the initial performance test, required by §60.8, is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after initial startup, whichever comes first.

(a) No owner or operator subject to the provisions of this subpart shall:

(1) Burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 gr/dscf). The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph.

(2) Discharge or cause the discharge of any gases into the atmosphere from any Claus sulfur recovery plant containing in excess of:

(i) For an oxidation control system or a reduction control system followed by incineration, 250 ppm by volume (dry basis) of sulfur dioxide (SO2) at zero percent excess air.

(ii) For a reduction control system not followed by incineration, 300 ppm by volume of reduced sulfur compounds and 10 ppm by volume of hydrogen sulfide (H2S), each calculated as ppm SO2 by volume (dry basis) at zero percent excess air.

(b) Each owner or operator that is subject to the provisions of this subpart shall comply with one of the following conditions for each affected fluid catalytic cracking unit catalyst regenerator:

(1) With an add-on control device, reduce sulfur dioxide emissions to the atmosphere by 90 percent or maintain sulfur dioxide emissions to the atmosphere less than or equal to 50 ppm by volume (vppm), whichever is less stringent; or

(2) Without the use of an add-on control device, maintain sulfur oxides emissions calculated as sulfur dioxide to the atmosphere less than or equal to 9.8 kg/Mg (20 lb/ton) coke burn-off; or

(3) Process in the fluid catalytic cracking unit fresh feed that has a total sulfur content no greater than 0.30 percent by weight.

(c) Compliance with paragraph (b)(1), (b)(2), or (b)(3) of this section is determined daily on a 7-day rolling average basis using the appropriate procedures outlined in §60.106.

(d) A minimum of 22 valid days of data shall be obtained every 30 rolling successive calendar days when complying with paragraph (b)(1) of this section.

§60.105 Monitoring of emissions and operations.

(a) Continuous monitoring systems shall be installed, calibrated, maintained, and operated by the owner or operator subject to the provisions of this subpart as follows:

(1) For fluid catalytic cracking unit catalyst regenerators subject to §60.102(a)(2), an instrument for continuously monitoring and recording the opacity of emissions into the atmosphere. The instrument shall be spanned at 60, 70, or 80 percent opacity.

(2) For fluid catalytic cracking unit catalyst regenerators subject to §60.103(a), an instrument for continuously monitoring and recording the concentration by volume (dry basis) of CO emissions into the atmosphere, except as provided in paragraph (a)(2) (ii) of this section.

(i) The span value for this instrument is 1,000 ppm CO.

(ii) A CO continuous monitoring system need not be installed if the owner or operator demonstrates that the average CO emissions are less than 50 ppm (dry basis) and also files a written request for exemption to the Administrator and receives such an exemption. The demonstration shall consist of continuously monitoring CO emissions for 30 days using an instrument that shall meet the requirements of Performance Specification 4 of Appendix B of this part. The span value shall be 100 ppm CO instead of 1,000 ppm, and the relative accuracy limit shall be 10 percent of the average CO emissions or 5 ppm CO, whichever is greater. For instruments that are identical to Method 10 and employ the sample conditioning system of Method 10A, the alternative relative accuracy test procedure in §10.1 of Performance Specification 2 may be used in place of the relative accuracy test.

(3) For fuel gas combustion devices subject to §60.104(a)(1), an instrument for continuously monitoring and recording the concentration by volume (dry basis, zero percent excess air) of SO2 emissions into the atmosphere (except where an H2S monitor is installed under paragraph (a)(4) of this section). The monitor shall include an oxygen monitor for correcting the data for excess air.

(i) The span values for this monitor are 50 ppm SO2 and 25 percent oxygen (O2).

(ii) The SO2 monitoring level equivalent to the H2S standard under §60.104(a)(1) shall be 20 ppm (dry basis, zero percent excess air).

(iii) The performance evaluations for this SO2 monitor under §60.13(c) shall use Performance Specification 2. Methods 6 or 6C and 3 or 3A shall be used for conducting the relative accuracy evaluations. Method 6 samples shall be taken at a flow rate of approximately 2 liters/min for at least 30 minutes. The relative accuracy limit shall be 20 percent or 4 ppm, whichever is greater, and the calibration drift limit shall be 5 percent of the established span value.

(iv) Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location (i.e., after one of the combustion devices), if monitoring at this location accurately represents the SO2 emissions into the atmosphere from each of the combustion devices.

(4) In place of the SO2 monitor in paragraph (a)(3) of this section, an instrument for continuously monitoring and recording the concentration (dry basis) of H2S in fuel gases before being burned in any fuel gas combustion device.

(i) The span value for this instrument is 425 mg/dscm H2S.

(ii) Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H2S in the fuel gas being burned.

(iii) The performance evaluations for this H2S monitor under §60.13(c) shall use Performance Specification 7. Method 11, 15, 15A, or 16 shall be used for conducting the relative accuracy evaluations.

(5) For Claus sulfur recovery plants with oxidation control systems or reduction control systems followed by incineration subject to §60.104(a)(2)(i), an instrument for continuously monitoring and recording the concentration (dry basis, zero percent excess air) of SO2 emissions into the atmosphere. The monitor shall include an oxygen monitor for correcting the data for excess air.

(i) The span values for this monitor are 500 ppm SO2 and 25 percent O2.

(ii) The performance evaluations for this SO2 monitor under §60.13(c) shall use Performance Specification 2. Methods 6 or 6C and 3 or 3A shall be used for conducting the relative accuracy evaluations.

(6) For Claus sulfur recovery plants with reduction control systems not followed by incineration subject to §60.104(a)(2)(ii), an instrument for continuously monitoring and recording the concentration of reduced sulfur and O2 emissions into the atmosphere. The reduced sulfur emissions shall be calculated as SO2 (dry basis, zero percent excess air).

(i) The span values for this monitor are 450 ppm reduced sulfur and 25 percent O2.

(ii) The performance evaluations for this reduced sulfur (and O2) monitor under §60.13(c) shall use Performance Specification 5 of Appendix B of this Part (and Performance Specification 3 of Appendix B of this Part for the O2 analyzer). Methods 15 or 15A and Method 3 shall be used for conducting the relative accuracy evaluations. If Method 3 yields O2 concentrations below 0.25 percent during the performance specification test, the O2 concentration may be assumed to be zero and the reduced sulfur CEMS need not include an O2 monitor.

(7) In place of the reduced sulfur monitor under paragraph (a)(6) of this section, an instrument using an air or O2 dilution and oxidation system to convert the reduced sulfur to SO2 for continuously monitoring and recording the concentration (dry basis, zero percent excess air) of the resultant SO2. The monitor shall include an oxygen monitor for correcting the data for excess oxygen.

(i) The span values for this monitor are 375 ppm SO2 and 25 percent O2.

(ii) For reporting purposes, the SO2 exceedance level for this monitor is 250 ppm (dry basis, zero percent excess air).

(iii) The performance evaluations for this SO2 (and O2) monitor under §60.13(c) shall use Performance Specification 5. Methods 15 or 15A and Method 3 shall be used for conducting the relative accuracy evaluations.

(8) An instrument for continuously monitoring and recording concentrations of SO2 in the gases at both the inlet and outlet of the SO2 control device from any fluid catalytic cracking unit catalyst regenerator for which the owner or operator seeks to comply with §60.104 (b)(1).

(i) The span value of the inlet monitor shall be set 125 percent of the maximum estimated hourly potential SO2 emission concentration entering the control device, and the span value of the outlet monitor shall be set at 50 percent of the maximum estimated hourly potential sulfur dioxide emission concentration entering the control device.

(ii) The performance evaluations for these SO2 monitors under §60.13(c) shall use Performance Specification 2. Methods 6 or 6C and 3 or 3A shall be used for conducting the relative accuracy evaluations.

(9) An instrument for continuously monitoring and recording concentrations of SO2 in the gases discharged into the atmosphere from any fluid catalytic cracking unit catalyst regenerator for which the owner or operator seeks to comply specifically with the 50 ppmv emission limit under §60.104 (b)(1).

(i) The span value of the monitor shall be set at 50 percent of the maximum hourly potential SO2 emission concentration of the control device.

(ii) The performance evaluations for this SO2 monitor under §60.13 (c) shall use Performance Specification 2. Methods 6 or 6C and 3 or 3A shall be used for conducting the relative accuracy evaluations.

(10) An instrument for continuously monitoring and recording concentrations of oxygen (O2) in the gases at both the inlet and outlet of the sulfur dioxide control device (or the outlet only if specifically complying with the 50 ppmv standard) from any fluid catalytic cracking unit catalyst regenerator for which the owner or operator has elected to comply with §60.104(b)(1). The span of this continuous monitoring system shall be set at 10 percent.

(11) The continuous monitoring systems under paragraphs (a)(8), (a)(9), and (a)(10) of this section are operated and data recorded during all periods of operation of the affected facility including periods of startup, shutdown, or malfunction, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments.

(12) The owner or operator shall use the following procedures to evaluate the continuous monitoring systems under paragraphs (a)(8), (a)(9), and (a)(10) of this section.

(i) Method 3 or 3A and Method 6 or 6C for the relative accuracy evaluations under the §60.13(e) performance evaluation.

(ii) Appendix F, Procedure 1, including quarterly accuracy determinations and daily calibration drift tests.

(13) When seeking to comply with §60.104(b)(1), when emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using one of the following methods to provide emission data for a minimum of 18 hours per day in at least 22 out of 30 rolling successive calendar days.

(i) The test methods as described in §60.106(k);

(ii) A spare continuous monitoring system; or

(iii) Other monitoring systems as approved by the Administrator.

(b) [Reserved]

(c) The average coke burn-off rate (Mg (tons) per hour) and hours of operation shall be recorded daily for any fluid catalytic cracking unit catalyst regenerator subject to §60.102, §60.103, or §60.104(b)(2).

(d) For any fluid catalytic cracking unit catalyst regenerator under §60.102 that uses an incinerator-waste heat boiler to combust the exhaust gases from the catalyst regenerator, the owner or operator shall record daily the rate of combustion of liquid or solid fossil-fuels and the hours of operation during which liquid or solid fossil-fuels are combusted in the incinerator-waste heat boiler.

(e) For the purpose of reports under §60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

Note: All averages, except for opacity, shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

(1) *Opacity.* All 1-hour periods that contain two or more 6-minute periods during which the average opacity as measured by the continuous monitoring system under §60.105(a)(1) exceeds 30 percent.

(2) *Carbon monoxide.* All 1-hour periods during which the average CO concentration as measured by the CO continuous monitoring system under §60.105(a)(2) exceeds 500 ppm.

(3) *Sulfur dioxide from fuel gas combustion.* (i) All rolling 3-hour periods during which the average concentration of SO2 as measured by the SO2 continuous monitoring system under §60.105(a)(3) exceeds 20 ppm (dry basis, zero percent excess air); or

(ii) All rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system under §60.105(a)(4) exceeds 230 mg/dscm (0.10 gr/dscf).

(4) *Sulfur dioxide from Claus sulfur recovery plants.* (i) All 12-hour periods during which the average concentration of SO2 as measured by the SO2 continuous monitoring system under §60.105(a)(5) exceeds 250 ppm (dry basis, zero percent excess air); or

(ii) All 12-hour periods during which the average concentration of reduced sulfur (as SO2) as measured by the reduced sulfur continuous monitoring system under §60.105(a)(6) exceeds 300 ppm; or

(iii) All 12-hour periods during which the average concentration of SO2 as measured by the SO2 continuous monitoring system under §60.105(a)(7) exceeds 250 ppm (dry basis, zero percent excess air).

§60.106 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter (PM) standards in §60.102(a) as follows:

(1) The emission rate (E) of PM shall be computed for each run using the following equation:

$$E = \frac{c_s Q_{sd}}{K R_c}$$

where:

E = Emission rate of PM, kg/Mg (lb/ton) of coke burn-off.

cs = Concentration of PM, g/dscm (gr/dscf).

Qsd = Volumetric flow rate of effluent gas, dscm/hr (dscf/hr).

Rc = Coke burn-off rate, Mg/hr (ton/hr) coke.

K=Conversion factor, 1,000 g/kg (7,000 gr/lb).

(2) Method 5B or 5F is to be used to determine particulate matter emissions and associated moisture content from affected facilities without wet FGD systems; only Method 5B is to be used after wet FGD systems. The sampling time for each run shall be at least 60 minutes and the sampling rate shall be at least 0.015 dscm/min (0.53 dscf/min), except that shorter sampling times may be approved by the Administrator when process variables or other factors preclude sampling for at least 60 minutes.

(3) The coke burn-off rate (Rc) shall be computed for each run using the following equation:

Rc = K1Qr(%CO2 + %CO)(K2Qa ! K3Qr) ((%CO/2) + (%CO2 + %O2))

Where:

Rc = Coke burn-off rate, Mg/hr (ton/hr).

Qr = Volumetric flow rate of exhaust gas from catalyst regenerator before entering the emission control system, dscm/min (dscf/min).

Qa = Volumetric flow rate of air to FCCU regenerator, as determined from the fluid catalytic cracking unit control room instrumentation, dscm/min (dscf/min).

%CO2 = Carbon dioxide concentration, percent by volume (dry basis).

%CO = Carbon monoxide concentration, percent by volume (dry basis).

%O2 = Oxygen concentration, percent by volume (dry basis).

K1 = Material balance and conversion factor, 2.982×10^{-4} (Mg-min)/(hr-dscm-%) [9.31×10^{-6} (ton-min)/(hr-dscf-%)].

K2 = Material balance and conversion factor, 2.088×10^{-3} (Mg-min)/(hr-dscm-%) [6.52×10^{-5} (ton-min)/(hr-dscf-%)].

K3 = Material balance and conversion factor, 9.94×10^{-5} (Mg-min)/(hr-dscm-%) [3.1×10^{-6} (ton-min)/(hr-dscf-%)].

(i) Method 2 shall be used to determine the volumetric flow rate (Qr).

(ii) The emission correction factor, integrated sampling and analysis procedure of Method 3B shall be used to determine CO2, CO, and O2 concentrations.

(4) Method 9 and the procedures of §60.11 shall be used to determine opacity.

(c) If auxiliary liquid or solid fossil-fuels are burned in an incinerator-waste heat boiler, the owner or operator shall determine the emission rate of PM permitted in §60.102(b) as follows:

(1) The allowable emission rate (Es) of PM shall be computed for each run using the following equation:

$$E_s = F + A\ (H/R_c)$$

where:

Es = Emission rate of PM allowed, kg/Mg (lb/ton) of coke burn-off in catalyst regenerator.

F=Emission standard, 1.0 kg/Mg (2.0 lb/ton) of coke burn-off in catalyst regenerator.

A = Allowable incremental rate of PM emissions, 7.5×10^{-4} kg/million J (0.10 lb/million Btu).

H = Heat input rate from solid or liquid fossil fuel, million J/hr (million Btu/hr).

Rc = Coke burn-off rate, Mg coke/hr (ton coke/hr).

(2) Procedures subject to the approval of the Administrator shall be used to determine the heat input rate.

(3) The procedure in paragraph (b)(3) of this section shall be used to determine the coke burn-off rate (Rc).

(d) The owner or operator shall determine compliance with the CO standard in §60.103(a) by using the integrated sampling technique of Method 10 to determine the CO concentration (dry basis). The sampling time for each run shall be 60 minutes.

(e)(1) The owner or operator shall determine compliance with the H2S standard in §60.104(a)(1) as follows: Method 11, 15, 15A, or 16 shall be used to determine the H2S concentration. The gases entering the sampling train should be at about atmospheric pressure. If the pressure in the refinery fuel gas lines is relatively high, a flow control valve may be used to reduce the pressure. If the line pressure is high enough to operate the sampling train without a vacuum pump, the pump may be eliminated from the sampling train. The sample shall be drawn from a point near the centroid of the fuel gas line.

(i) For Method 11, the sampling time and sample volume shall be at least 10 minutes and 0.010 dscm (0.35 dscf). Two samples of equal sampling times shall be taken at about 1-hour intervals. The arithmetic average of these two samples shall constitute a run. For most fuel gases, sampling times exceeding 20 minutes may result in depletion of the collection solution, although fuel gases containing low concentrations of H2S may necessitate sampling for longer periods of time.

(ii) For Method 15 or 16, at least three injects over a 1-hour period shall constitute a run.

(iii) For Method 15A, a 1-hour sample shall constitute a run.

(2) Where emissions are monitored by §60.105(a)(3), compliance with §60.105(a)(1) shall be determined using Method 6 or 6C and Method 3 or 3A. A 1-hour sample shall constitute a run. Method 6 samples shall be taken at a rate of approximately 2 liters/min. The ppm correction factor (Method 6) and the sampling location in paragraph (f)(1) of this section apply. Method 4 shall be used to determine the moisture content of the gases. The sampling point for Method 4 shall be adjacent to the sampling point for Method 6 or 6C.

(f) The owner or operator shall determine compliance with the SO2 and the H2S and reduced sulfur standards in §60.104(a)(2) as follows:

(1) Method 6 shall be used to determine the SO2 concentration. The concentration in mg/dscm obtained by Method 6 or 6C is multiplied by 0.3754 to obtain the concentration in ppm. The sampling point in the duct shall be the centroid of the cross section if the cross-sectional area is less than 5.00 m^2 (53.8 ft^2) or at a point no closer to the walls than 1.00 m (39.4 in.) if the cross-sectional area is 5.00 m^2 or more and the centroid is more than 1 m from the wall. The sampling time and sample volume shall be at least 10 minutes and 0.010 dscm (0.35 dscf) for each sample. Eight samples of equal sampling times shall be taken at about 30-minute intervals. The arithmetic average of these eight samples shall constitute a run. For Method 6C, a run shall consist of the arithmetic average of four 1-hour samples. Method 4 shall be used to determine the moisture content of the gases. The sampling point for Method 4 shall be adjacent to the sampling point for Method 6 or 6C. The sampling time for each sample shall be equal to the time it takes for two Method 6 samples. The moisture content from this sample shall be used to correct the corresponding Method 6 samples for moisture. For documenting the oxidation efficiency of the control device for reduced sulfur compounds, Method 15 shall be used following the procedures of paragraph (f)(2) of this section.

(2) Method 15 shall be used to determine the reduced sulfur and H2 S concentrations. Each run shall consist of 16 samples taken over a minimum of 3 hours. The sampling point shall be the same as that described for Method 6 in paragraph (f)(1) of this section. To ensure minimum residence time for the

sample inside the sample lines, the sampling rate shall be at least 3.0 lpm (0.10 cfm). The SO2 equivalent for each run shall be calculated after being corrected for moisture and oxygen as the arithmetic average of the SO2 equivalent for each sample during the run. Method 4 shall be used to determine the moisture content of the gases as the paragraph (f)(1) of this section. The sampling time for each sample shall be equal to the time it takes for four Method 15 samples.

(3) The oxygen concentration used to correct the emission rate for excess air shall be obtained by the integrated sampling and analysis procedure of Method 3 or 3A. The samples shall be taken simultaneously with the SO2, reduced sulfur and H2S, or moisture samples. The SO2, reduced sulfur, and H2S samples shall be corrected to zero percent excess air using the equation in paragraph (h)(6) of this section.

(g) Each performance test conducted for the purpose of determining compliance under §60.104(b) shall consist of all testing performed over a 7-day period using Method 6 or 6C and Method 3 or 3A. To determine compliance, the arithmetic mean of the results of all the tests shall be compared with the applicable standard.

(h) For the purpose of determining compliance with §60.104(b)(1), the following calculation procedures shall be used:

(1) Calculate each 1-hour average concentration (dry, zero percent oxygen, ppmv) of sulfur dioxide at both the inlet and the outlet to the add-on control device as specified in §60.13(h). These calculations are made using the emission data collected under §60.105(a).

(2) Calculate a 7-day average (arithmetic mean) concentration of sulfur dioxide for the inlet and for the outlet to the add-on control device using all of the 1-hour average concentration values obtained during seven successive 24-hour periods.

(3) Calculate the 7-day average percent reduction using the following equation:

Rso2=100(Cso2(i) ! Cso2(o))/Cso2(i)

where:

Rso2=7-day average sulfur dioxide emission reduction, percent

Cso2(i)=sulfur dioxide emission concentration determined in §60.106(h)(2) at the inlet to the add-on control device, ppmv

Cso2(o)=sulfur dioxide emission concentration determined in §60.106(h)(2) at the outlet to the add-on control device, ppmv

100=conversion factor, decimal to percent

(4) Outlet concentrations of sulfur dioxide from the add-on control device for compliance with the 50 ppmv standard, reported on a dry, O2-free basis, shall be calculated using the procedures outlined in §60.106(h)(1) and (2) above, but for the outlet monitor only.

(5) If supplemental sampling data are used for determining the 7-day averages under paragraph (h) of this section and such data are not hourly averages, then the value obtained for each supplemental sample shall be assumed to represent the hourly average for each hour over which the sample was obtained.

(6) For the purpose of adjusting pollutant concentrations to zero percent oxygen, the following equation shall be used:

Cadj=Cmeas[20.9c/(20.9 - %O2)]

where:

Cadj=pollutant concentration adjusted to zero percent oxygen, ppm or g/dscm

Cmeas=pollutant concentration measured on a dry basis, ppm or g/dscm

20.9c=20.9 percent oxygen ! 0.0 percent oxygen (defined oxygen correction basis), percent

20.9=oxygen concentration in air, percent

%O2=oxygen concentration measured on a dry basis, percent

(i) For the purpose of determining compliance with §60.104(b)(2), the following reference methods and calculation procedures shall be used except as provided in paragraph (i)(12) of this section:

(1) One 3-hour test shall be performed each day.

(2) For gases released to the atmosphere from the fluid catalytic cracking unit catalyst regenerator:

(i) Method 8 as modified in §60.106(i)(3) for moisture content and for the concentration of sulfur oxides calculated as sulfur dioxide,

(ii) Method 1 for sample and velocity traverses,

(iii) Method 2 calculation procedures (data obtained from Methods 3 and 8) for velocity and volumetric flow rate, and

(iv) Method 3 for gas analysis.

(3) Method 8 shall be modified by the insertion of a heated glass fiber filter between the probe and first impinger. The probe liner and glass fiber filter temperature shall be maintained above 160 °C (320 °F). The isopropanol impinger shall be eliminated. Sample recovery procedures described in Method 8 for container No. 1 shall be eliminated. The heated glass fiber filter also shall be excluded; however, rinsing of all connecting glassware after the heated glass fiber filter shall be retained and included in container No. 2. Sampled volume shall be at least 1 dscm.

(4) For Method 3, the integrated sampling technique shall be used.

(5) Sampling time for each run shall be at least 3 hours.

(6) All testing shall be performed at the same location. Where the gases discharged by the fluid catalytic cracking unit catalyst regenerator pass through an incinerator-waste heat boiler in which auxiliary or

supplemental gaseous, liquid, or solid fossil fuel is burned, testing shall be conducted at a point between the regenerator outlet and the incinerator-waste heat boiler. An alternative sampling location after the waste heat boiler may be used if alternative coke burn-off rate equations, and, if requested, auxiliary/supplemental fuel SOX credits, have been submitted to and approved by the Administrator prior to sampling.

(7) Coke burn-off rate shall be determined using the procedures specified under paragraph (b)(3) of this section, unless paragraph (i)(6) of this section applies.

(8) Calculate the concentration of sulfur oxides as sulfur dioxide using equation 8-3 in Section 6.5 of Method 8 to calculate and report the total concentration of sulfur oxides as sulfur dioxide (Csox).

(9) Sulfur oxides emission rate calculated as sulfur dioxide shall be determined for each test run by the following equation:

$$E_{SO_x} = C_{SO_x} Q_{sd} / K$$

where:

ESOx = sulfur oxides emission rate calculated as sulfur dioxide, kg/hr (lb/hr)

CSOx = sulfur oxides emission concentration calculated as sulfur dioxide, g/dscm (gr/dscf)

Qsd = dry volumetric stack gas flow rate corrected to standard conditions, dscm/hr (dscf/hr)

K=1,000 g/kg (7,000 gr/lb)

(10) Sulfur oxides emissions calculated as sulfur dioxide shall be determined for each test run by the following equation:

$$R_{SO_x} = \left(E_{SO_x} / R_c \right)$$

where:

RSOx = Sulfur oxides emissions calculated as kg sulfur dioxide per Mg (lb/ton) coke burn-off.

ESOx = Sulfur oxides emission rate calculated as sulfur dioxide, kg/hr (lb/hr).

Rc = Coke burn-off rate, Mg/hr (ton/hr).

(11) Calculate the 7-day average sulfur oxides emission rate as sulfur dioxide per Mg (ton) of coke burn-off by dividing the sum of the individual daily rates by the number of daily rates summed.

(12) An owner or operator may, upon approval by the Administrator, use an alternative method for determining compliance with §60.104(b)(2), as provided in §60.8(b). Any requests for approval must include data to demonstrate to the Administrator that the alternative method would produce results adequate for the determination of compliance.

(j) For the purpose of determining compliance with §60.104(b)(3), the following analytical methods and calculation procedures shall be used:

(1) One fresh feed sample shall be collected once per 8-hour period.

(2) Fresh feed samples shall be analyzed separately by using any one of the following applicable analytical test methods: ASTM D129-64, 78, or 95, ASTM D1552-83 or 95, ASTM D2622-87, 94, or 98, or ASTM D1266-87, 91, or 98. (These methods are incorporated by reference: see §60.17.) The applicable range of some of these ASTM methods is not adequate to measure the levels of sulfur in some fresh feed samples. Dilution of samples prior to analysis with verification of the dilution ratio is acceptable upon prior approval of the Administrator.

(3) If a fresh feed sample cannot be collected at a single location, then the fresh feed sulfur content shall be determined as follows:

(i) Individual samples shall be collected once per 8-hour period for each separate fresh feed stream charged directly into the riser or reactor of the fluid catalytic cracking unit. For each sample location the fresh feed volumetric flow rate at the time of collecting the fresh feed sample shall be measured and recorded. The same method for measuring volumetric flow rate shall be used at all locations.

(ii) Each fresh feed sample shall be analyzed separately using the methods specified under paragraph (j)(2) of this section.

(iii) Fresh feed sulfur content shall be calculated for each 8-hour period using the following equation:

$$S_f = \sum_{i=1}^{n} \frac{S_i Q_i}{Q_f}$$

where:

Sf = fresh feed sulfur content expressed in percent by weight of fresh feed.

n = number of separate fresh feed streams charged directly to the riser or reactor of the fluid catalytic cracking unit.

Qf = total volumetric flow rate of fresh feed charged to the fluid catalytic cracking unit.

Si = fresh feed sulfur content expressed in percent by weight of fresh feed for the "ith" sampling location.

Qi = volumetric flow rate of fresh feed stream for the "ith" sampling location.

(4) Calculate a 7-day average (arithmetic mean) sulfur content of the fresh feed using all of the fresh feed sulfur content values obtained during seven successive 24-hour periods.

(k) The test methods used to supplement continuous monitoring system data to meet the minimum data requirements in §60.104(d) will be used as described below or as otherwise approved by the Administrator.

(1) Methods 6, 6B, or 8 are used. The sampling location(s) are the same as those specified for the monitor.

(2) For Method 6, the minimum sampling time is 20 minutes and the minimum sampling volume is 0.02 dscm (0.71 dscf) for each sample. Samples are taken at approximately 60-minute intervals. Each sample represents a 1-hour average. A minimum of 18 valid samples is required to obtain one valid day of data.

(3) For Method 6B, collection of a sample representing a minimum of 18 hours is required to obtain one valid day of data.

(4) For Method 8, the procedures as outlined in this section are used. The equivalent of 16 hours of sampling is required to obtain one valid day of data.

§60.107 Reporting and record keeping requirements.

(a) Each owner or operator subject to §60.104(b) shall notify the Administrator of the specific provisions of §60.104(b) with which the owner or operator seeks to comply. Notification shall be submitted with the notification of initial startup required by §60.7(a)(3). If an owner or operator elects at a later date to comply with an alternative provision of §60.104(b), then the Administrator shall be notified by the owner or operator in the report described in paragraph (c) of this section.

(b) Each owner or operator subject to §60.104(b) shall record and maintain the following information:

(1) If subject to §60.104(b)(1),

(i) All data and calibrations from continuous monitoring systems located at the inlet and outlet to the control device, including the results of the daily drift tests and quarterly accuracy assessments required under appendix F, Procedure 1;

(ii) Measurements obtained by supplemental sampling (refer to §60.105(a)(13) and §60.106(k)) for meeting minimum data requirements; and

(iii) The written procedures for the quality control program required by appendix F, Procedure 1.

(2) If subject to §60.104(b)(2), measurements obtained in the daily Method 8 testing, or those obtained by alternative measurement methods, if §§60.106(i)(12) applies.

(3) If subject to §60.104(b)(3), data obtained from the daily feed sulfur tests.

(4) Each 7-day rolling average compliance determination.

(c) Each owner or operator subject to §60.104(b) shall submit a report except as provided by paragraph (d) of this section. The following information shall be contained in the report:

(1) Any 7-day period during which:

(i) The average percent reduction and average concentration of sulfur dioxide on a dry, O2-free basis in the gases discharged to the atmosphere from any fluid cracking unit catalyst regenerator for which the owner or operator seeks to comply with §60.104(b)(1) is below 90 percent and above 50 vppm, as measured by the continuous monitoring system prescribed under §60.105(a)(8), or above 50 vppm, as

measured by the outlet continuous monitoring system prescribed under §60.105(a)(9). The average percent reduction and average sulfur dioxide concentration shall be determined using the procedures specified under §60.106(h);

(ii) The average emission rate of sulfur dioxide in the gases discharged to the atmosphere from any fluid catalytic cracking unit catalyst regenerator for which the owner or operator seeks to comply with §60.104(b)(2) exceeds 9.8 kg SOX per 1,000 kg coke burn-off, as measured by the daily testing prescribed under §60.106(i). The average emission rate shall be determined using the procedures specified under §60.106(i); and

(iii) The average sulfur content of the fresh feed for which the owner or operator seeks to comply with §60.104(b)(3) exceeds 0.30 percent by weight. The fresh feed sulfur content, a 7-day rolling average, shall be determined using the procedures specified under §60.106(j).

(2) Any 30-day period in which the minimum data requirements specified in §60.104(d) are not obtained.

(3) For each 7-day period during which an exceedance has occurred as defined in paragraphs (c)(1)(i) through (c)(1)(iii) and (c)(2) of this section:

(i) The date that the exceedance occurred;

(ii) An explanation of the exceedance;

(iii) Whether the exceedance was concurrent with a startup, shutdown, or malfunction of the fluid catalytic cracking unit or control system; and

(iv) A description of the corrective action taken, if any.

(4) If subject to §60.104(b)(1),

(i) The dates for which and brief explanations as to why fewer than 18 valid hours of data were obtained for the inlet continuous monitoring system;

(ii) The dates for which and brief explanations as to why fewer than 18 valid hours of data were obtained for the outlet continuous monitoring system;

(iii) Identification of times when hourly averages have been obtained based on manual sampling methods;

(iv) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system; and

(v) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specifications 2 or 3.

(vi) Results of daily drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.

(5) If subject to §60.104(b)(2), for each day in which a Method 8 sample result required by §60.106(i) was not obtained, the date for which and brief explanation as to why a Method 8 sample result was not obtained, for approval by the Administrator.

(6) If subject to §60.104(b)(3), for each 8-hour period in which a feed sulfur measurement required by §60.106(j) was not obtained, the date for which and brief explanation as to why a feed sulfur measurement was not obtained, for approval by the Administrator.

(d) For any periods for which sulfur dioxide or oxides emissions data are not available, the owner or operator of the affected facility shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.

(e) The owner or operator of an affected facility shall submit the reports required under this subpart to the Administrator semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period.

(f) The owner or operator of the affected facility shall submit a signed statement certifying the accuracy and completeness of the information contained in the report.

§60.108 Performance test and compliance provisions.

(a) Section 60.8(d) shall apply to the initial performance test specified under paragraph (c) of this section, but not to the daily performance tests required thereafter as specified in §60.108(d). Section 60.8(f) does not apply when determining compliance with the standards specified under §60.104(b). Performance tests conducted for the purpose of determining compliance under §60.104(b) shall be conducted according to the applicable procedures specified under §60.106.

(b) Owners or operators who seek to comply with §60.104(b)(3) shall meet that standard at all times, including periods of startup, shutdown, and malfunctions.

(c) The initial performance test shall consist of the initial 7-day average calculated for compliance with §60.104(b)(1), (b)(2), or (b)(3).

(d) After conducting the initial performance test prescribed under §60.8, the owner or operator of a fluid catalytic cracking unit catalyst regenerator subject to §60.104(b) shall conduct a performance test for each successive 24-hour period thereafter. The daily performance tests shall be conducted according to the appropriate procedures specified under §60.106. In the event that a sample collected under §60.106(i) or (j) is accidentally lost or conditions occur in which one of the samples must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operators' control, compliance may be determined using available data for the 7-day period.

(e) Each owner or operator subject to §60.104(b) who has demonstrated compliance with one of the provisions of §60.104(b) but a later date seeks to comply with another of the provisions of §60.104(b) shall begin conducting daily performance tests as specified under paragraph (d) of this section immediately upon electing to become subject to one of the other provisions of §60.104(b). The owner or

operator shall furnish the Administrator with a written notification of the change in the semiannual report required by §60.107(e).

§60.109 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which shall not be delegated to States:

(1) Section 60.105(a)(13)(iii),

(2) Section 60.106(i)(12).

5. 40 CFR Part 60, Subpart K -- Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978

§60.110 Applicability and designation of affected facility.

(a) Except as provided in §60.110(b), the affected facility to which this subpart applies is each storage vessel for petroleum liquids which has a storage capacity greater than 151,412 liters (40,000 gallons).

(b) This subpart does not apply to storage vessels for petroleum or condensate stored, processed, and/or treated at a drilling and production facility prior to custody transfer.

(c) Subject to the requirements of this subpart is any facility under paragraph (a) of this section which:

(1) Has a capacity greater than 151, 416 liters (40,000 gallons), but not exceeding 246,052 liters (65,000 gallons), and commences construction or modification after March 8, 1974, and prior to May 19, 1978.

(2) Has a capacity greater than 246,052 liters (65,000 gallons) and commences construction or modification after June 11, 1973, and prior to May 19, 1978.

§60.111 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in Subpart A of this part.

(a) *Storage vessel* means any tank, reservoir, or container used for the storage of petroleum liquids, but does not include:

(1) Pressure vessels which are designed to operate in excess of 15 pounds per square inch gauge without emissions to the atmosphere except under emergency conditions,

(2) Subsurface caverns or porous rock reservoirs, or

(3) Underground tanks if the total volume of petroleum liquids added to and taken from a tank annually does not exceed twice the volume of the tank.

(b) *Petroleum liquids* means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery but does not mean Nos. 2 through 6 fuel oils as specified in ASTM D396-78, 89, 90, 92, 96, or 98, gas turbine fuel oils Nos. 2-GT through 4-GT as specified in ASTM D2880-78 or 96, or diesel fuel oils Nos. 2-D and 4-D as specified in ASTM D975-78, 96, or 98a. (These three methods are incorporated by reference -- see §60.17.)

(c) *Petroleum refinery* means each facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of petroleum or through redistillation, cracking, extracting, or reforming of unfinished petroleum derivatives.

(d) *Petroleum* means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

(e) *Hydrocarbon* means any organic compound consisting predominantly of carbon and hydrogen.

(f) *Condensate* means hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature and/or pressure and remains liquid at standard conditions.

(g) *Custody transfer* means the transfer of produced petroleum and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

(h) *Drilling and production facility* means all drilling and servicing equipment, wells, flow lines, separators, equipment, gathering lines, and auxiliary nontransportation-related equipment used in the production of petroleum but does not include natural gasoline plants.

(i) *True vapor pressure* means the equilibrium partial pressure exerted by a petroleum liquid as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, Evaporation Loss from External Floating-Roof Tanks, Second Edition, February 1980 (incorporated by reference -- see §60.17).

(j) *Floating roof* means a storage vessel cover consisting of a double deck, pontoon single deck, internal floating cover or covered floating roof, which rests upon and is supported by the petroleum liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and tank wall.

(k) *Vapor recovery system* means a vapor gathering system capable of collecting all hydrocarbon vapors and gases discharged from the storage vessel and a vapor disposal system capable of processing such hydrocarbon vapors and gases so as to prevent their emission to the atmosphere.

(l) *Reid vapor pressure* is the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids, except liquified petroleum gases, as determined by ASTM D323-82 or 94 (incorporated by reference -- see §60.17).

§60.112 Standard for volatile organic compounds (VOC).

(a) The owner or operator of any storage vessel to which this subpart applies shall store petroleum liquids as follows:

(1) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than 78 mm Hg (1.5 psia) but not greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a floating roof, a vapor recovery system, or their equivalents.

(2) If the true vapor pressure of the petroleum liquid as stored is greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a vapor recovery system or its equivalent.

§60.113 Monitoring of operations.

(a) Except as provided in paragraph (d) of this section, the owner or operator subject to this subpart shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period.

(b) Available data on the typical Reid vapor pressure and the maximum expected storage temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517, unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(c) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa (2.0 psia) or whose physical properties preclude determination by the recommended method is to be determined from available data and recorded if the estimated true vapor pressure is greater than 6.9 kPa (1.0 psia).

(d) The following are exempt from the requirements of this section:

(1) Each owner or operator of each affected facility which stores petroleum liquids with a Reid vapor pressure of less than 6.9 kPa (1.0 psia) provided the maximum true vapor pressure does not exceed 6.9 kPa (1.0 psia).

(2) Each owner or operator of each affected facility equipped with a vapor recovery and return or disposal system in accordance with the requirements of §60.112.

6. 40 CFR Part 60, Subpart Ka -- Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984

[The following emissions units contained in this permit are subject to 40 CFR Part 60, Subpart Ka: T009, T055, T064, T070, T071, T072, T073, T074, T075, T076, T083, T084, T085, T086, T087, T088, T213, T214, and T217.]

§60.110a Applicability and designation of affected facility.

(a) *Affected facility.* Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a storage capacity greater than 151,416 liters (40,000 gallons) that is used to store petroleum liquids for which construction is commenced after May 18, 1978.

(b) Each petroleum liquid storage vessel with a capacity of less than 1,589,873 liters (420,000 gallons) used for petroleum or condensate stored, processed, or treated prior to custody transfer is not an affected facility and, therefore, is exempt from the requirements of this subpart.

(c) *Alternative means of compliance* -- (1) *Option to comply with part 65.* Owners or operators may choose to comply with 40 CFR Part 65, Subpart C, to satisfy the requirements of §60.112a through 60.114a for storage vessels that are subject to this subpart that store petroleum liquids that, as stored, have a maximum true vapor pressure equal to or greater than 10.3 kPa (1.5 psia). Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(2) *Part 60, Subpart A.* Owners or operators who choose to comply with 40 CFR Part 65, Subpart C, must also comply with §60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (c)(2) do not apply to owners or operators of storage vessels complying with 40 CFR Part 65, Subpart C, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR Part 65, Subpart C, must comply with 40 CFR part 65, subpart A.

§60.111a Definitions.

In addition to the terms and their definitions listed in the Act and subpart A of this part the following definitions apply in this subpart:

(a) *Storage vessel* means each tank, reservoir, or container used for the storage of petroleum liquids, but does not include:

(1) Pressure vessels which are designed to operate in excess of 204.9 kPa (15 psig) without emissions to the atmosphere except under emergency conditions.

(2) Subsurface caverns or porous rock reservoirs, or

(3) Underground tanks if the total volume of petroleum liquids added to and taken from a tank annually does not exceed twice the volume of the tank.

(b) *Petroleum liquids* means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery but does not mean Nos. 2 through 6 fuel oils as specified in ASTM D396-78, 89, 90, 92, 96, or 98, gas turbine fuel oils Nos. 2-GT through 4-GT as specified in ASTM D2880-78 or 96, gas turbine fuel oils Nos. 2-GT through 4-GT as specified in ASTM D2880-78 or 96, or diesel fuel oils Nos. 2-D and 4-D as specified in ASTM D975-78, 96, or 98a. (These three methods are incorporated by reference -- see §60.17.)

(c) *Petroleum refinery* means each facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of petroleum or through redistillation, cracking, extracting, or reforming of unfinished petroleum derivatives.

(d) *Petroleum* means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

(e) *Condensate* means hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.

(f) *True vapor pressure* means the equilibrium partial pressure exerted by a petroleum liquid such as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, Evaporation Loss from External Floating-Roof Tanks, Second Edition, February 1980 (incorporated by reference -- see §60.17).

(g) *Reid vapor pressure* is the absolute vapor pressure of volatile crude oil and nonviscous petroleum liquids, except liquified petroleum gases, as determined by ASTM D323-82 or 94 (incorporated by reference -- see §60.17).

(h) *Liquid-mounted seal* means a foam or liquid-filled primary seal mounted in contact with the liquid between the tank wall and the floating roof continuously around the circumference of the tank.

(i) *Metallic shoe seal* includes but is not limited to a metal sheet held vertically against the tank wall by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(j) *Vapor-mounted seal* means a foam-filled primary seal mounted continuously around the circumference of the tank so there is an annular vapor space underneath the seal. The annular vapor space is bounded by the bottom of the primary seal, the tank wall, the liquid surface, and the floating roof.

(k) *Custody transfer* means the transfer of produced petroleum and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

§60.112a Standard for volatile organic compounds (VOC).

(a) The owner or operator of each storage vessel to which this subpart applies which contains a petroleum liquid which, as stored, has a true vapor pressure equal to or greater than 10.3 kPa (1.5 psia) but not greater than 76.6 kPa (11.1 psia) shall equip the storage vessel with one of the following:

(1) An external floating roof, consisting of a pontoon-type or double-deck-type cover that rests on the surface of the liquid contents and is equipped with a closure device between the tank wall and the roof edge. Except as provided in paragraph (a)(1)(ii)(D) of this section, the closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal and the upper seal is referred to as the secondary seal. The roof is to be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill and when the tank is completely emptied and subsequently refilled.

The process of emptying and refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

(i) The primary seal is to be either a metallic shoe seal, a liquid-mounted seal, or a vapor-mounted seal. Each seal is to meet the following requirements:

(A) The accumulated area of gaps between the tank wall and the metallic shoe seal or the liquid-mounted seal shall not exceed 212 cm^2 per meter of tank diameter (10.0 in^2 per ft of tank diameter) and the width of any portion of any gap shall not exceed 3.81 cm (1 1/2 in).

(B) The accumulated area of gaps between the tank wall and the vapor-mounted seal shall not exceed 21.2 cm^2 per meter of tank diameter (1.0 in^2 per ft of tank diameter) and the width of any portion of any gap shall not exceed 1.27 cm (1/2 in).

(C) One end of the metallic shoe is to extend into the stored liquid and the other end is to extend a minimum vertical distance of 61 cm (24 in) above the stored liquid surface.

(D) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(ii) The secondary seal is to meet the following requirements:

(A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in paragraph (a)(1)(ii)(B) of this section.

(B) The accumulated area of gaps between the tank wall and the secondary seal used in combination with a metallic shoe or liquid-mounted primary seal shall not exceed 21.2 cm^2 per meter of tank diameter (1.0 in^2 per ft. of tank diameter) and the width of any portion of any gap shall not exceed 1.27 cm (1/2 in.). There shall be no gaps between the tank wall and the secondary seal used in combination with a vapor-mounted primary seal.

(C) There are to be no holes, tears or other openings in the seal or seal fabric.

(D) The owner or operator is exempted from the requirements for secondary seals and the secondary seal gap criteria when performing gap measurements or inspections of the primary seal.

(iii) Each opening in the roof except for automatic bleeder vents and rim space vents is to provide a projection below the liquid surface. Each opening in the roof except for automatic bleeder vents, rim space vents and leg sleeves is to be equipped with a cover, seal or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use or as described in paragraph (a)(1)(iv) of this section. Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting.

(iv) Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(2) A fixed roof with an internal floating type cover equipped with a continuous closure device between the tank wall and the cover edge. The cover is to be floating at all times, (i.e., off the leg supports) except during initial fill and when the tank is completely emptied and subsequently refilled. The process of emptying and refilling when the cover is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. Each opening in the cover except for automatic bleeder vents and the rim space vents is to provide a projection below the liquid surface. Each opening in the cover except for automatic bleeder vents, rim space vents, stub drains and leg sleeves is to be equipped with a cover, seal, or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the cover is floating except when the cover is being floated off or is being landed on the leg supports. Rim vents are to be set to open only when the cover is being floated off the leg supports or at the manufacturer's recommended setting.

(3) A vapor recovery system which collects all VOC vapors and gases discharged from the storage vessel, and a vapor return or disposal system which is designed to process such VOC vapors and gases so as to reduce their emission to the atmosphere by at least 95 percent by weight.

(4) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in §60.114a.

(b) The owner or operator of each storage vessel to which this subpart applies which contains a petroleum liquid which, as stored, has a true vapor pressure greater than 76.6 kPa (11.1 psia), shall equip the storage vessel with a vapor recovery system which collects all VOC vapors and gases discharged from the storage vessel, and a vapor return or disposal system which is designed to process such VOC vapors and gases so as to reduce their emission to the atmosphere by at least 95 percent by weight.

§60.113a Testing and procedures.

(a) Except as provided in §60.8(b) compliance with the standard prescribed in §60.112a shall be determined as follows or in accordance with an equivalent procedure as provided in §60.114a.

(1) The owner or operator of each storage vessel to which this subpart applies which has an external floating roof shall meet the following requirements:

(i) Determine the gap areas and maximum gap widths between the primary seal and the tank wall and between the secondary seal and the tank wall according to the following frequency:

(A) For primary seals, gap measurements shall be performed within 60 days of the initial fill with petroleum liquid and at least once every five years thereafter. All primary seal inspections or gap measurements which require the removal or dislodging of the secondary seal shall be accomplished as rapidly as possible and the secondary seal shall be replaced as soon as possible.

(B) For secondary seals, gap measurements shall be performed within 60 days of the initial fill with petroleum liquid and at least once every year thereafter.

(C) If any storage vessel is out of service for a period of one year or more, subsequent refilling with petroleum liquid shall be considered initial fill for the purposes of paragraphs (a)(1)(i)(A) and (a)(1)(i)(B) of this section.

(D) Keep records of each gap measurement at the plant for a period of at least 2 years following the date of measurement. Each record shall identify the vessel on which the measurement was performed and shall contain the date of the seal gap measurement, the raw data obtained in the measurement process required by paragraph (a)(1)(ii) of this section and the calculation required by paragraph (a)(1)(iii) of this section.

(E) If either the seal gap calculated in accord with paragraph (a)(1)(iii) of this section or the measured maximum seal gap exceeds the limitations specified by §60.112a of this subpart, a report shall be furnished to the Administrator within 60 days of the date of measurements. The report shall identify the vessel and list each reason why the vessel did not meet the specifications of §60.112a. The report shall also describe the actions necessary to bring the storage vessel into compliance with the specifications of §60.112a.

(ii) Determine gap widths in the primary and secondary seals individually by the following procedures:

(A) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.

(B) Measure seal gaps around the entire circumference of the tank in each place where a 1/8 inch diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the tank wall and measure the circumferential distance of each such location.

(C) The total surface area of each gap described in paragraph (a)(1)(ii)(B) of this section shall be determined by using probes of various widths to accurately measure the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(iii) Add the gap surface area of each gap location for the primary seal and the secondary seal individually. Divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the appropriate ratio in the standard in §60.112a(a)(1)(i) and §60.112a(a)(1)(ii).

(iv) Provide the Administrator 30 days prior notice of the gap measurement to afford the Administrator the opportunity to have an observer present.

(2) The owner or operator of each storage vessel to which this subpart applies which has a vapor recovery and return or disposal system shall provide the following information to the Administrator on or before the date on which construction of the storage vessel commences:

(i) Emission data, if available, for a similar vapor recovery and return or disposal system used on the same type of storage vessel, which can be used to determine the efficiency of the system. A complete description of the emission measurement method used must be included.

(ii) The manufacturer's design specifications and estimated emission reduction capability of the system.

(iii) The operation and maintenance plan for the system.

(iv) Any other information which will be useful to the Administrator in evaluating the effectiveness of the system in reducing VOC emissions.

§60.114a Alternative means of emission limitation.

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in §60.112a, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative means for purposes of compliance with that requirement.

(b) Any notice under paragraph (a) of this section will be published only after notice and an opportunity for a hearing.

(c) Any person seeking permission under this section shall submit to the Administrator a written application including:

(1) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.

(2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.

(d) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in §60.112a.

(e) The primary vapor-mounted seal in the "Volume-Maximizing Seal" manufactured by R.F.I. Services Corporation is approved as equivalent to the vapor-mounted seal required by §60.112a(a)(1)(i) and must meet the gap criteria specified in §60.112a(a)(1)(i)(B). There shall be no gaps between the tank wall and any secondary seal used in conjunction with the primary seal in the "Volume-Maximizing Seal".

§60.115a Monitoring of operations.

(a) Except as provided in paragraph (d) of this section, the owner or operator subject to this subpart shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period.

(b) Available data on the typical Reid vapor pressure and the maximum expected storage temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517, unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(c) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa (2.0 psia) or whose physical properties preclude determination by the recommended method is to be determined from available data and recorded if the estimated true vapor pressure is greater than 6.9 kPa (1.0 psia).

(d) The following are exempt from the requirements of this section:

(1) Each owner or operator of each storage vessel storing a petroleum liquid with a Reid vapor pressure of less than 6.9 kPa (1.0 psia) provided the maximum true vapor pressure does not exceed 6.9 kPa (1.0 psia).

(2) The owner or operator of each storage vessel equipped with a vapor recovery and return or disposal system in accordance with the requirements of §60.112a(a)(3) and (b), or a closed vent system and control device meeting the specifications of 40 CFR 65.42(b)(4), (b)(5), or (c).

7. 40 CFR Part 60, Subpart Kb -- Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

[The following emissions units contained in this permit are subject to 40 CFR Part 60, Subpart Kb: T010, T011, T078, T080, T081, T090, T091, T121, T190, T191, T192, T196, T197, T198, T201, T202, T203, T204, T212, T220, T222 and T223.]

§60.110b Applicability and designation of affected facility.

(a) Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

(b) This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure less than 15.0 kPa.

(c) [Reserved]

(d) This subpart does not apply to the following:

(1) Vessels at coke oven by-product plants.

(2) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.

(3) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships.

(4) Vessels with a design capacity less than or equal to 1,589.874 m^3 used for petroleum or condensate stored, processed, or treated prior to custody transfer.

(5) Vessels located at bulk gasoline plants.

(6) Storage vessels located at gasoline service stations.

(7) Vessels used to store beverage alcohol.

(8) Vessels subject to subpart GGGG of 40 CFR part 63.

(e) *Alternative means of compliance* -- (1) *Option to comply with part 65.* Owners or operators may choose to comply with 40 CFR Part 65, Subpart C, to satisfy the requirements of §60.112b through 60.117b for storage vessels that are subject to this subpart that meet the specifications in paragraphs (e)(1)(i) and (ii) of this section. When choosing to comply with 40 CFR Part 65, Subpart C, the monitoring requirements of §60.116b(c), (e), (f)(1), and (g) still apply. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(i) A storage vessel with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa; or

(ii) A storage vessel with a design capacity greater than 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa.

(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR Part 65, Subpart C, must also comply with §60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2) do not apply to owners or operators of storage vessels complying with 40 CFR Part 65, Subpart C, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR Part 65, Subpart C, must comply with 40 CFR Part 65, Subpart A.

(3) *Internal floating roof report.* If an owner or operator installs an internal floating roof and, at initial startup, chooses to comply with 40 CFR Part 65, Subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.43. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

(4) *External floating roof report.* If an owner or operator installs an external floating roof and, at initial startup, chooses to comply with 40 CFR Part 65, Subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.44. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

§60.111b Definitions.

Terms used in this subpart are defined in the Act, in subpart A of this part, or in this subpart as follows:

Bulk gasoline plant means any gasoline distribution facility that has a gasoline throughput less than or equal to 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal requirement or Federal, State or local law, and discoverable by the Administrator and any other person.

Condensate means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.

Custody transfer means the transfer of produced petroleum and/or condensate, after processing and/or treatment in the producing operations, from storage vessels or automatic transfer facilities to pipelines or any other forms of transportation.

Fill means the introduction of VOL into a storage vessel but not necessarily to complete capacity.

Gasoline service station means any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.

Maximum true vapor pressure means the equilibrium partial pressure exerted by the volatile organic compounds (as defined in 40 CFR 51.100) in the stored VOL at the temperature equal to the highest calendar-month average of the VOL storage temperature for VOL's stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for VOL's stored at the ambient temperature, as determined:

(1) In accordance with methods described in American Petroleum institute Bulletin 2517, Evaporation Loss From External Floating Roof Tanks, (incorporated by reference -- see §60.17); or

(2) As obtained from standard reference texts; or

(3) As determined by ASTM D2879-83, 96, or 97 (incorporated by reference -- see §60.17);

(4) Any other method approved by the Administrator.

Petroleum means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

Petroleum liquids means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery.

Process tank means a tank that is used within a process (including a solvent or raw material recovery process) to collect material discharged from a feedstock storage vessel or equipment within the process before the material is transferred to other equipment within the process, to a product or by-product storage vessel, or to a vessel used to store recovered solvent or raw material. In many process tanks, unit operations such as reactions and blending are conducted. Other process tanks, such as surge control vessels and bottoms receivers, however, may not involve unit operations.

Reid vapor pressure means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquified petroleum gases, as determined by ASTM D323-82 or 94 (incorporated by reference -- see §60.17).

Storage vessel means each tank, reservoir, or container used for the storage of volatile organic liquids but does not include:

(1) Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of liquids or vapors;

(2) Subsurface caverns or porous rock reservoirs; or

(3) Process tanks.

Volatile organic liquid (VOL) means any organic liquid which can emit volatile organic compounds (as defined in 40 CFR 51.100) into the atmosphere.

Waste means any liquid resulting from industrial, commercial, mining or agricultural operations, or from community activities that is discarded or is being accumulated, stored, or physically, chemically, or biologically treated prior to being discarded or recycled.

§60.112b Standard for volatile organic compounds (VOC).

(a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:

(1) A fixed roof in combination with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(2) An external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Each external floating roof must meet the following specifications:

(i) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in §60.113b(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall.

(B) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in §60.113b(b)(4).

(ii) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(iii) The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

(3) A closed vent system and control device meeting the following specifications:

(i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, §60.485(b).

(ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.

(4) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in §60.114b of this subpart.

(b) The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m^3 which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following:

(1) A closed vent system and control device as specified in §60.112b(a)(3).

(2) A system equivalent to that described in paragraph (b)(1) as provided in §60.114b of this subpart.

(c) **[Not Applicable]** *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.* This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site").

(1) **[Not Applicable]** For any storage vessel that otherwise would be subject to the control technology requirements of paragraphs (a) or (b) of this section, the site shall have the option of either complying directly with the requirements of this subpart, or reducing the site-wide total criteria pollutant emissions cap (total emissions cap) in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the total emissions cap in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this subpart for such storage vessel.

(2) **[Not Applicable]** For any storage vessel at the site not subject to the requirements of 40 CFR 60.112b (a) or (b), the requirements of 40 CFR 60.116b (b) and (c) and the General Provisions (subpart A of this part) shall not apply.

§60.113b Testing and procedures.

The owner or operator of each storage vessel as specified in §60.112b(a) shall meet the requirements of paragraph (a), (b), or (c) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of §60.112b.

(a) After installing the control equipment required to meet §60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:

(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

(2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on

the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in §60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet §60.112b(a)(2) (external floating roof), the owner or operator shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

(i) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in (b)(4) (i) and (ii) of this section:

(i) The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 Cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.

(A) One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.

(B) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(ii) The secondary seal is to meet the following requirements:

(A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in paragraph (b)(2)(iii) of this section.

(B) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm.

(C) There are to be no holes, tears, or other openings in the seal or seal fabric.

(iii) If a failure that is detected during inspections required in paragraph (b)(1) of §60.113b(b) cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of

a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, the owner or operator shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) The owner or operator of each source that is equipped with a closed vent system and control device as required in §60.112b (a)(3) or (b)(2) (other than a flare) is exempt from §60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by §60.7(a)(1) or, if the facility is exempt from §60.7(a)(1), as an attachment to the notification required by §60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

(d) The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in §60.112b (a)(3) or (b)(2) shall meet the requirements as specified in the general control device requirements, §60.18 (e) and (f).

§60.114b Alternative means of emission limitation.

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in §60.112b, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative means for purposes of compliance with that requirement.

(b) Any notice under paragraph (a) of this section will be published only after notice and an opportunity for a hearing.

(c) Any person seeking permission under this section shall submit to the Administrator a written application including:

(1) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.

(2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.

(d) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in §60.112b.

§60.115b Reporting and record keeping requirements.

The owner or operator of each storage vessel as specified in §60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of §60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.

(a) After installing control equipment in accordance with §60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the notification required by §60.7(a)(3).

(2) Keep a record of each inspection performed as required by §60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §61.112b(a)(1) or §60.113b(a)(3) and list each repair made.

(b) After installing control equipment in accordance with §61.112b(a)(2) (external floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(2) and §60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by §60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by §60.113b(b)(1), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in §60.113b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by §60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in §60.113b (b)(2) and (b)(3).

(4) After each seal gap measurement that detects gaps exceeding the limitations specified by §60.113b(b)(4), submit a report to the Administrator within 30 days of the inspection. The report will identify the vessel and contain the information specified in paragraph (b)(2) of this section and the date the vessel was emptied or the repairs made and date of repair.

(c) After installing control equipment in accordance with §60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records.

(1) A copy of the operating plan.

(2) A record of the measured values of the parameters monitored in accordance with §60.113b(c)(2).

(d) After installing a closed vent system and flare to comply with §60.112b, the owner or operator shall meet the following requirements.

(1) A report containing the measurements required by §60.18(f) (1), (2), (3), (4), (5), and (6) shall be furnished to the Administrator as required by §60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date.

(2) Records shall be kept of all periods of operation during which the flare pilot flame is absent.

(3) Semiannual reports of all periods recorded under §60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Administrator.

§60.116b Monitoring of operations.

(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.

(b) The owner or operator of each storage vessel as specified in §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

(c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

(d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor vapor pressure values for each volume range.

(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference -- see §60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

(3) For other liquids, the vapor pressure:

(i) May be obtained from standard reference texts, or

(ii) Determined by ASTM D2879-83, 96, or 97 (incorporated by reference -- see §60.17); or

(iii) Measured by an appropriate method approved by the Administrator; or

(iv) Calculated by an appropriate method approved by the Administrator.

(f) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.

(1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of this section.

(2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in §60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:

(i) ASTM D2879-83, 96, or 97 (incorporated by reference -- see §60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see §60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specification of §60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of paragraphs (c) and (d) of this section.

§60.117b Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: §60.111b(f)(4), 60.114b, 60.116b(e)(3)(iii), 60.116b(e)(3)(iv), and 60.116b(f)(2)(iii).

8. 40 CFR Part 61, Subpart Y -- National Emission Standard for Benzene Emissions From Benzene Storage Vessels

[The following emissions units contained in this permit are subject to 40 CFR Part 61, Subpart Y: T084, T085, T086, and T087.]

§61.270 Applicability and designation of sources.

(a) The source to which this subpart applies is each storage vessel that is storing benzene having a specific gravity within the range of specific gravities specified in ASTM D836-84 for Industrial Grade Benzene, ASTM D835-85 for Refined Benzene-485, ASTM D2359-85a or 93 for Refined Benzene-535, and ASTM D4734-87 or 96 for Refined Benzene-545. These specifications are incorporated by reference as specified in §61.18. See §61.18 for acceptable versions of these methods.

(b) Except for paragraph (b) in §61.276, storage vessels with a design storage capacity less than 38 cubic meters (10,000 gallons) are exempt from the provisions of this subpart.

(c) This subpart does not apply to storage vessels used for storing benzene at coke by-product facilities.

(d) This subpart does not apply to vessels permanently attached to motor vehicles such as trucks, rail cars, barges, or ships.

(e) This subpart does not apply to pressure vessels designed to operate in excess of 204.9 kPa (29.72 psia) and without emissions to the atmosphere.

(f) A designated source subject to the provisions of this subpart that is also subject to applicable provisions of 40 CFR part 60 subparts K, Ka, and Kb shall be required to comply only with the subpart that contains the most stringent requirements for that source.

(g) *Alternative means of compliance* -- (1) *Option to comply with part 65.* Owners or operators may choose to comply with 40 CFR Part 65, Subpart C, to satisfy the requirements of §61.271 through 61.277, except for §61.271(d)(2) and 61.274(a) for storage vessels that are subject to this subpart. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(2) *Part 61, subpart A.* Owners or operators who choose to comply with 40 CFR Part 65, Subpart C, must also comply with §61.01, 61.02, 61.05 through 61.08, 61.10(b) through (d), 61.11, and 61.15 for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (g)(2) do not apply for storage vessels complying with 40 CFR Part 65, Subpart C, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR Part 65, Subpart C, must comply with 40 CFR part 65, subpart A.

§61.271 Emission standard.

The owner or operator of each storage vessel with a design storage capacity greater than or equal to 38 cubic meters (10,000 gallons) to which this subpart applies shall comply with the requirements in paragraph (d) of this section and with the requirements either in paragraph (a), (b), or (c) of this section, or equivalent as provided in §61.273.

(a) The storage vessel shall be equipped with a fixed roof and an internal floating roof.

(1) An internal floating roof means a cover that rests on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a permanently affixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(2) Each internal floating roof shall be equipped with one of the closure devices listed in paragraphs (a)(2) (i), (ii), or (iii) of this section between the wall of the storage vessel and the edge of the internal floating roof. This requirement does not apply to each existing storage vessel for which construction of an internal floating roof equipped with a continuous seal commenced on or before July 28, 1988. A continuous seal means a seal that forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof.

(i) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the vessel.

(ii) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(iii) A metallic shoe seal. A metallic shoe seal (also referred to as a mechanical shoe seal) is, but is not limited to, a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(3) Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports.

(4) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(5) Each internal floating roof shall meet the specifications listed below. If an existing storage vessel had an internal floating roof with a continuous seal as of July 28, 1988, the requirements listed below do not have to be met until the first time after September 14, 1989, the vessel is emptied and degassed or September 14, 1999, whichever occurs first,

(i) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid.

The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted.

(ii) Each penetration of the internal floating roof for the purposes of sampling shall be a sample well. Each sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(iii) Each automatic bleeder vent shall be gasketed.

(iv) Rim space vents shall be equipped with a gasket.

(v) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(vi) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(6) Each cover or lid on any opening in the internal floating roof shall be closed (i.e., no visible gaps), except when a device is in actual use Covers on each access hatch and each automatic gauge float well which are equipped with bolts shall be bolted when they are not in use. Rim space vents are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(b) The storage vessel shall have an external floating roof.

(1) An external floating roof means a pontoon-type or double-deck-type cover that rests on the liquid surface in a vessel with no fixed roof.

(2) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. Except as provided in paragraph (b)(5) of this section, the closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal and the upper seal is referred to as the secondary seal.

(i) The primary seal shall be either a metallic shoe seal or a liquid-mounted seal. A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the vessel. A metallic shoe seal (which can also be referred to as a mechanical shoe seal) is, but is not limited to, a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof. Except as provided in §61.272(b)(4), the primary seal shall completely cover the annular space between the edge of the floating roof and the vessel wall.

(ii) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in §61.272(b)(4).

(3) Except for automatic bleeder vents and rim space vents, each opening in the noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof leg supports or at the manufacturer's

recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(4) The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the vessel is completely emptied and subsequently refilled. The process of emptying and refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

(5) The requirement for a secondary seal does not apply to each existing storage vessel that was equipped with a liquid-mounted primary seal as of July 28, 1988, until after the first time after September 14, 1989, when the vessel is emptied and degassed or 10 years from September 14, 1989, whichever occurs first.

(c) The storage vessel shall be equipped with a closed vent system and a control device.

(1) The closed vent system shall be designed to collect all benzene vapors and gases discharged from the storage vessel and operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in §61.242-11 (subpart V).

(2) The control device shall be designed and operated to reduce inlet benzene emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements of 40 CFR 60.18.

(3) The specifications and requirements listed in paragraphs (c)(1) and (c)(2) of this section for closed vent systems and control devices do not apply during periods of routine maintenance. During periods of routine maintenance, the benzene level in the storage vessel(s) serviced by the control device subject to the provisions of §61.271(c) may be lowered but not raised. Periods of routine maintenance shall not exceed 72 hours as outlined in the maintenance plan required by §61.272(c)(1)(iii).

(4) The specifications and requirements listed in paragraphs (c)(1) and (c)(2) of this section for closed vents and control devices do not apply during a control system malfunction. A control system malfunction means any sudden and unavoidable failure of air pollution control equipment. A failure caused entirely or in part by design deficiencies, poor maintenance, careless operation, or other preventable upset condition or equipment breakdown is not considered a malfunction.

(d) The owner or operator of each affected storage vessel shall meet the requirements of paragraph (a), (b), or (c) of this section or §61.270(g) as follows:

(1) The owner or operator of each existing benzene storage vessel shall meet the requirements of paragraph (a), (b), or (c) of this section no later than 90 days after September 14, 1989, with the exceptions noted in paragraphs (a)(5) and (b)(5), unless a waiver of compliance has been approved by the Administrator in accordance with §61.11.

(2) The owner or operator of each benzene storage vessel upon which construction commenced after September 14, 1989 shall meet the requirements of paragraph (a), (b), or (c) of this section or §61.270(g) prior to filling (*i.e.,* roof is lifted off leg supports) the storage vessel with benzene.

(3) The owner or operator of each benzene storage vessel upon which construction commenced on or after July 28, 1988, and before September 14, 1989, shall meet the requirements of paragraph (a), (b), or (c) of this section on September 14, 1989.

§61.272 Compliance provisions.

(a) For each vessel complying with §61.271(a) (fixed roof and internal floating roof) each owner or operator shall:

(1) After installing the control equipment required to comply with §61.271(a), visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with benzene. If there are holes, tears or other openings in the primary seal, the secondary seal, or the seal fabric, or defects in the internal floating roof, the owner or operator shall repair the items before filling the storage vessel.

(2) Visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill, or at least once every 12 months after September 14, 1989, except as provided in paragraph (a)(4)(i) of this section. If the internal floating roof is not resting on the surface of the benzene liquid inside the storage vessel, or there is liquid on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, an extension of up to 30 additional days may be requested from the Administrator in the inspection report required in §61.275(a). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspections as specified in paragraph (a)(2) of this section and at intervals greater than 5 years in the case of vessels specified in paragraph (a)(4)(i) of this section.

(i) For all the inspections required by paragraphs (a)(1) and (a)(3) of this section, the owner or operator shall notify the Administrator in writing at least 30 days prior to the refilling of each storage vessel to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(3) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the vessel, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to refilling.

(ii) If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has

more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with benzene.

(4) For vessels equipped with a double-seal system as specified in §61.271(a)(2)(ii):

(i) Visually inspect the vessel as specified in paragraph (a)(3) of this section at least every 5 years; or

(ii) Visually inspect the vessel annually as specified in paragraph (a)(2) of this section, and at least every 10 years as specified in paragraph (a)(3) of this section.

(b) For each vessel complying with §61.271(b) (external floating roof) the owner or operator shall:

(1) Determine the gap areas and maximum gap widths between the primary seal and the wall of the storage vessel, and the secondary seal and the wall of the storage vessel according to the following frequency.

(i) For an external floating roof vessel equipped with primary and secondary seals, measurements of gaps between the vessel wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 90 days of the initial fill with benzene or within 90 days of September 14, 1989, whichever occurs last, and at least once every 5 years thereafter, except as provided in paragraph (b)(1)(ii) of this section.

(ii) For an external floating roof vessel equipped with a liquid-mounted primary seal and without a secondary seal as provided for in §61.271(b)(5), measurement of gaps between the vessel wall and the primary seal (seal gaps) shall be performed within 90 days of September 14, 1989, and at least once per year thereafter. When a secondary seal is installed over the primary seal, measurement of primary seal gaps shall be performed within 90 days of installation and at least once every 5 years thereafter.

(iii) For an external floating roof vessel equipped with primary and secondary seals, measurements of gaps between the vessel wall and the secondary seal shall be performed within 90 days of the initial fill with benzene, within 90 days of installation of the secondary seal, or within 90 days after September 14, 1989, whichever occurs last, and at least once per year thereafter.

(iv) If any source ceases to store benzene for a period of 1 year or more, subsequent introduction of benzene into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i), (b)(1)(ii), and (b)(1)(iii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

(i) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.

(ii) Measure seal gaps around the entire circumference of the vessel in each place where a 0.32 centimeter (cm) (1/8 in) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the vessel wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually. Divide the sum for each seal by the nominal diameter of the vessel and compare each ratio to the respective standards in §61.272(b)(4) and §61.272(b)(5).

(4) Repair conditions that do not meet requirements listed in paragraph (b)(4) (i) and (ii) within 45 days of identification in any inspection or empty and remove the storage vessel from service within 45 days.

(i) The accumulated area of gaps between the vessel wall and the metallic shoe seal or the liquid-mounted primary seal shall not exceed 212 cm^2 per meter of vessel diameter (10.0 in^2 per foot of vessel diameter) and the width of any portion of any gap shall not exceed 3.81 cm (1 1/2 in).

(A) One end of the metallic shoe is to extend into the stored liquid and the other end is to extend a minimum vertical distance of 61 cm (24 in) above the stored liquid surface.

(B) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(ii) The secondary seal is to meet the following requirements:

(A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the vessel wall except as provided in paragraph (b)(4)(ii)(B) of this section.

(B) The accumulated area of gaps between the vessel wall and the secondary seal shall not exceed 21.2 cm^2 per meter of vessel diameter (1.0 in^2 per foot of vessel diameter) or the width of any portion of any gap shall not exceed 1.27 cm (1/2 in). These seal gap requirements may be exceeded during the measurement of primary seal gaps as required by paragraph (b)(1)(i) or (b)(1)(ii) of this section.

(C) There are to be no holes, tears, or other openings in the seal or seal fabric.

(iii) If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, an extension of up to 30 additional days may be requested from the Administrator in the inspection report required in §61.275(d). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(5) The owner or operator shall notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with benzene.

(ii) For all the inspections required by paragraph (b)(6) of this section, the owner or operator shall notify the Administrator in writing at least 30 days prior to filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the vessel, the owner or operator shall notify the Administrator at least 7 days prior to refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) The owner or operator of each source that is equipped with a closed vent system and control device as required in §60.271(c), other than a flare, shall meet the following requirements.

(1) Within 90 days after initial fill or after September 14, 1989, whichever comes last, submit for approval by the Administrator, an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device being used achieves the required control efficiency during reasonably expected maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and benzene content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases or liquids, other than fuels, from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C (1,500 °F) is used to meet the 95 percent requirement, documentation that those conditions exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device is operated and maintained in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(iii) A maintenance plan for the system including the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods for those operations that would require the closed vent system or the control device to be out of compliance with §61.271(c). The maintenance plan shall require that the system be out of compliance with §61.271(c) for no more than 72 hours per year.

(2) Operate, monitor the parameters, and maintain the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the approval process. In this case, the modified plan applies.

(d) The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in §61.271(c) shall meet the requirements as specified in the general control device requirements in 40 CFR 60.18 (e) and (f).

§61.273 Alternative means of emission limitation.

(a) Upon written application from any person, the Administrator may approve the use of alternative means of emission limitation which have been demonstrated to his satisfaction to achieve a reduction in benzene emissions at least equivalent to the reduction in emissions achieved by any requirement in §61.271 (a), (b), or (c) of this subpart.

(b) Determination of equivalence to the reduction in emissions achieved by the requirements of §61.271 (a), (b), or (c) will be evaluated using the following information to be included in the written application to the Administrator:

(1) Actual emissions tests that use full-size or scale-model storage vessels that accurately collect and measure all benzene emissions from a given control device, and that accurately simulate wind and account for other emission variables such as temperature and barometric pressure.

(2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.

(c) The Administrator may condition approval of equivalency on requirements that may be necessary to ensure operation and maintenance to achieve the same emission reduction as the requirements of §61.271 (a), (b), or (c).

(d) If, in the Administrator's judgment, an application for equivalence may be approvable, the Administrator will publish a notice of preliminary determination in the FEDERAL REGISTER and provide the opportunity for public hearing. After notice and opportunity for public hearing, the Administrator will determine the equivalence of the alternative means of emission limitation and will publish the final determination in the FEDERAL REGISTER.

§61.274 Initial report.

(a) The owner or operator of each storage vessel to which this subpart applies and which has a design capacity greater than or equal to 38 cubic meters (10,000 gallons) shall submit an initial report describing the controls which will be applied to meet the equipment requirements of §61.271 or §61.270(g). For an existing storage vessel or a new storage vessel for which construction and operation commenced prior to September 14, 1989, this report shall be submitted within 90 days of September 14, 1989 and can be combined with the report required by §61.10. For a new storage vessel for which construction or operation commenced on or after September 14, 1989, the report shall be combined with the report required by §61.07 or 40 CFR 65.5(b). In the case where the owner or operator seeks to comply with §61.271(c), with a control device other than a flare, this information may consist of the information required by §61.272(c)(1).

(b) The owner or operator of each storage vessel seeking to comply with §61.271(c) with a flare, shall submit a report containing the measurements required by 40 CFR 60.18(f) (1), (2), (3), (4), (5), and (6). For the owner or operator of an existing storage vessel not seeking to obtain a waiver or a new storage vessel for which construction and operation commenced prior to September 14, 1989, this report shall be combined with the report required by paragraph (a) of this section. For the owner or operator of an existing storage vessel seeking to obtain a waiver, the reporting date will be established in the response to the waiver request. For the owner or operator of a new storage vessel for which construction or operation commenced after September 14, 1989, the report shall be submitted within 90 days of the date the vessel is initially filled (or partially filled) with benzene.

§61.275 Periodic report.

(a) The owner or operator of each storage vessel to which this subpart applies after installing control equipment in accordance with §61.271(a) (fixed roof and internal floating roof) shall submit a report describing the results of each inspection conducted in accordance with §61.272(a). For vessels for which annual inspections are required under §61.272(a)(2), the first report is to be submitted no more than 12 months after the initial report submitted in accordance with §61.274, and each report is to be submitted within 60 days of each annual inspection.

(1) Each report shall include the date of the inspection of each storage vessel and identify each storage vessel in which:

(i) The internal floating roof is not resting on the surface of the benzene liquid inside the storage vessel, or there is liquid on the roof, or the seal is detached from the internal floating roof, or there are holes, tears or other openings in the seal or seal fabric; or

(ii) There are visible gaps between the seal and the wall of the storage vessel.

(2) Where an annual report identifies any condition in paragraph (a)(1) of this section the annual report shall describe the nature of the defect, the date the storage vessel was emptied, and the nature of an date the repair was made, except as provided in paragraph (a)(3) of this section.

(3) If an extension is requested in an annual periodic report in accordance with §61.272(a)(2), a supplemental periodic report shall be submitted within 15 days of repair. The supplemental periodic report shall identify the vessel and describe the date the storage vessel was emptied and the nature of and date the repair was made.

(b) The owner or operator of each storage vessel to which this subpart applies after installing control equipment in accordance with §61.271(a) (fixed roof and internal floating roof) shall submit a report describing the results of each inspection conducted in accordance with §61.272(a) (3) or (4).

(1) The report is to be submitted within 60 days of conducting each inspection required by §61.272(a) (3) or (4).

(2) Each report shall identify each storage vessel in which the owner or operator finds that the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal (if one has been installed) has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area. The report shall also describe the nature of the defect, the date the storage vessel was emptied, and the nature of and date the repair was made.

(c) Any owner or operator of an existing storage vessel which had an internal floating roof with a continuous seal as of July 28, 1988, and which seeks to comply with the requirements of §61.271(a)(5) during the first time after September 14, 1989, when the vessel is emptied and degassed but no later than 10 years from September 14, 1989, shall notify the Administrator 30 days prior to the completion of the installation of such controls and the date of refilling of the vessel so the Administrator has an opportunity to have an observer present to inspect the storage vessel before it is refilled. This report can be combined with the one required by §61.275(b).

(d) The owner or operator of each storage vessel to which this subpart applies after installing control equipment in accordance with §61.271(b) (external floating roof) shall submit a report describing the results of each seal gap measurement made in accordance with §61.272(b). The first report is to be submitted no more than 12 months after the initial report submitted in accordance with §61.274(a), and each annual periodic report is to be submitted within 60 days of each annual inspection.

(1) Each report shall include the date of the measurement, the raw data obtained in the measurement, and the calculations described in §61.272(b) (2) and (3), and shall identify each storage vessel which does not meet the gap specifications of §61.272(b). Where an annual report identifies any vessel not meeting the seal gap specifications of §61.272(b) the report shall describe the date the storage vessel was emptied, the measures used to correct the condition and the date the storage vessel was brought into compliance.

(2) If an extension is requested in an annual periodic report in accordance with §61.272(b)(4)(iii), a supplemental periodic report shall be submitted within 15 days of repair. The supplemental periodic report shall identify the vessel and describe the date the vessel was emptied and the nature of and date the repair was made.

(e) Excess emission report.

(1) The owner or operator of each source seeking to comply with §61.271(c) (vessels equipped with closed vent systems with control devices) shall submit a quarterly report informing the Administrator of each occurrence that results in excess emissions. Excess emissions are emissions that occur at any time when compliance with the specifications and requirements of §61.271(c) are not achieved, as evidenced by the parameters being measured in accordance with §61.272(c)(1)(ii) if a control device other than a flare is used, or by the measurements required in §61.272(d) and the general control device requirements in 40 CFR 60.18(f) (1) and (2) if a flare is used.

(2) The owner or operator shall submit the following information as a minimum in the report required by (e)(1) of this section:

(i) Identify the stack and other emission points where the excess emissions occurred;

(ii) A statement of whether or not the owner or operator believes a control system malfunction has occurred.

(3) If the owner or operator states that a control system malfunction has occurred, the following information as a minimum is also to be included in the report required under paragraph (e)(1) of this section:

(i) Time and duration of the control system malfunction as determined by continuous monitoring data (if any), or the inspections or monitoring done in accordance with the operating plan required by §61.272(c).

(ii) Cause of excess emissions.

§61.276 Record keeping.

(a) Each owner or operator with a storage vessel subject to this subpart shall keep copies of all the reports and records required by this subpart for at least 2 years, except as specified in paragraphs (b) and (c)(1) of this section.

(b) Each owner or operator with a storage vessel, including any vessel which has a design storage capacity less than 38 cubic meters (10,000 gallons), shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel is in operation. Each storage vessel with a design capacity of less than 38 cubic meters (10,000 gallons) is subject to no provisions of this subpart other than those required by this paragraph.

(c) The following information pertaining to closed vent system and control devices shall be kept in a readily accessible location.

(1) A copy of the operating plan. This record shall be kept as long as the closed vent system and control device is in use.

(2) A record of the measured values of the parameters monitored in accordance with §61.272(c)(1)(ii) and §61.272(c)(2).

(3) A record of the maintenance performed in accordance with §61.272(c)(1)(iii) of the operating plan, including the following:

(i) The duration of each time the closed vent system and control device does not meet the specifications of §61.271(c) due to maintenance, including the following:

(A) The first time of day and date the requirements of §61.271(c) were not met at the beginning of maintenance.

(B) The first time of day and date the requirements of §61.271(c) were met at the conclusion of maintenance.

(C) A continuous record of the liquid level in each storage vessel that the closed vent system and control device receive vapors from during the interval between the times specified by (c)(3)(i)(A) and (c)(3)(i)(B). Pumping records (simultaneous input and output) may be substituted for records of the liquid level.

§61.277 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 112(d) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: §61.273.

9. 40 CFR Part 61, Subpart FF - National Emission Standard for Benzene Waste Operations

[The following emissions units contained in this permit are subject to 40 CFR Part 61, Subpart FF: B028, P025, P040, P041, T010, T011, T078, T090, T091, T191, T192, T202, T203, T204, T212, T217 and T220.]

§ 61.340 Applicability.

(a) The provisions of this subpart apply to owners and operators of chemical manufacturing plants, coke by-product recovery plants, and petroleum refineries.

(b) The provisions of this subpart apply to owners and operators of hazardous waste treatment, storage, and disposal facilities that treat, store, or dispose of hazardous waste generated by any facility listed in paragraph (a) of this section. The waste streams at hazardous waste treatment, storage, and disposal facilities subject to the provisions of this subpart are the benzene-containing hazardous waste from any facility listed in paragraph (a) of this section. A hazardous waste treatment, storage, and disposal facility is a facility that must obtain a hazardous waste management permit under subtitle C of the Solid Waste Disposal Act.

(c) At each facility identified in paragraph (a) or (b) of this section, the following waste is exempt from the requirements of this subpart:

(1) Waste in the form of gases or vapors that is emitted from process fluids:

(2) Waste that is contained in a segregated stormwater sewer system.

(d) At each facility identified in paragraph (a) or (b) of this section, any gaseous stream from a waste management unit, treatment process, or wastewater treatment system routed to a fuel gas system, as defined in § 61.341, is exempt from this subpart. No testing, monitoring, record keeping, or reporting is required under this subpart for any gaseous stream from a waste management unit, treatment process, or wastewater treatment unit routed to a fuel gas system.

§ 61.341 Definitions.

Benzene concentration means the fraction by weight of benzene in a waste as determined in accordance with the procedures specified in § 61.355 of this subpart.

Car-seal means a seal that is placed on a device that is used to change the position of a valve (e.g., from opened to closed) in such a way that the position of the valve cannot be changed without breaking the seal.

Chemical manufacturing plant means any facility engaged in the production of chemicals by chemical, thermal, physical, or biological processes for use as a product, co-product, by-product, or intermediate including but not limited to industrial organic chemicals, organic pesticide products, pharmaceutical preparations, paint and allied products, fertilizers, and agricultural chemicals. Examples of chemical manufacturing plants include facilities at which process units are operated to produce one or more of the

following chemicals: benzenesulfonic acid, benzene, chlorobenzene, cumene, cyclohexane, ethylene, ethylbenzene, hydroquinone, linear alklylbenzene, nitrobenzene, resorcinol, sulfolane, or styrene.

Closed-vent system means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission source to a control device.

Coke by-product recovery plant means any facility designed and operated for the separation and recovery of coal tar derivatives (by-products) evolved from coal during the coking process of a coke oven battery.

Container means any portable waste management unit in which a material is stored, transported, treated, or otherwise handled. Examples of containers are drums, barrels, tank trucks, barges, dumpsters, tank cars, dump trucks, and ships.

Control device means an enclosed combustion device, vapor recovery system, or flare.

Cover means a device or system which is placed on or over a waste placed in a waste management unit so that the entire waste surface area is enclosed and sealed to minimize air emissions. A cover may have openings necessary for operation, inspection, and maintenance of the waste management unit such as access hatches, sampling ports, and gauge wells provided that each opening is closed and sealed when not in use. Example of covers include a fixed roof installed on a tank, a lid installed on a container, and an air-supported enclosure installed over a waste management unit.

External floating roof means a pontoon-type or double-deck type cover with certain rim sealing mechanisms that rests on the liquid surface in a waste management unit with no fixed roof.

Facility means all process units and product tanks that generate waste within a stationary source, and all waste management units that are used for waste treatment, storage, or disposal within a stationary source.

Fixed roof means a cover that is mounted on a waste management unit in a stationary manner and that does not move with fluctuations in liquid level.

Floating roof means a cover with certain rim sealing mechanisms consisting of a double deck, pontoon single deck, internal floating cover or covered floating roof, which rests upon and is supported by the liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and unit wall.

Flow indicator means a device which indicates whether gas flow is present in a line or vent system.

Fuel gas system means the offsite and onsite piping and control system that gathers gaseous streams generated by facility operations, may blend them with sources of gas, if available, and transports the blended gaseous fuel at suitable pressures for use as fuel in heaters, furnaces, boilers, incinerators, gas turbines, and other combustion devices located within or outside the facility. The fuel is piped directly to each individual combustion device, and the system typically operates at pressures over atmospheric.

Individual drain system means the system used to convey waste from a process unit, product storage tank, or waste management unit to a waste management unit. The term includes all process drains and

common junction boxes, together with their associated sewer lines and other junction boxes, down to the receiving waste management unit.

Internal floating roof means a cover that rests or floats on the liquid surface inside a waste management unit that has a fixed roof.

Liquid-mounted seal means a foam or liquid-filled primary seal mounted in contact with the liquid between the waste management unit wall and the floating roof continuously around the circumference.

Loading means the introduction of waste into a waste management unit but not necessarily to complete capacity (also referred to as filling).

Maximum organic vapor pressure means the equilibrium partial pressure exerted by the waste at the temperature equal to the highest calendar-month average of the waste storage temperature for waste stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for waste stored at the ambient temperature, as determined:

(1) In accordance with § 60.17(c); or

(2) As obtained from standard reference texts; or

(3) In accordance with § 60.17(a)(37); or

(4) Any other method approved by the Administrator.

No detectable emissions means less than 500 parts per million by volume (ppmv) above background levels, as measured by a detection instrument reading in accordance with the procedures specified in § 61.355(h) of this subpart.

Oil-water separator means a waste management unit, generally a tank or surface impoundment, used to separate oil from water. An oil-water separator consists of not only the separation unit but also the forebay and other separator basins, skimmers, weirs, grit chambers, sludge hoppers, and bar screens that are located directly after the individual drain system and prior to additional treatment units such as an air flotation unit, clarifier, or biological treatment unit. Examples of an oil-water separator incude an API separator, parallel-plate interceptor, and corrugated-plate interceptor with the associated ancillary equipment.

Petroleum refinery means any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through the distillation of petroleum, or through the redistillation, cracking, or reforming of unfinished petroleum derivatives.

Petroleum means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

Point of waste generation means the location where the waste stream exits the process unit component or storage tank prior to handling or treatment in an operation that is not an integral part of the production process, or in the case of waste management units that generate new wastes after treatment, the location where the waste stream exits the waste management unit component.

Process unit means equipment assembled and connected by pipes or ducts to produce intermediate or final products. A process unit can be operated independently if supplied with sufficient fuel or raw materials and sufficient product storage facilities.

Process unit turnaround means the shutting down of the operations of a process unit, the purging of the contents of the process unit, the maintenance or repair work, followed by restarting of the process.

Process unit turnaround waste means a waste that is generated as a result of a process unit turnaround.

Process wastewater means water which comes in contact with benzene during manufacturing or processing operations conducted within a process unit. Process wastewater is not organic wastes, process fluids, product tank drawdown, cooling tower blowdown, steam trap condensate, or landfill leachate.

Process wastewater stream means a waste stream that contains only process wastewater.

Product tank means a stationary unit that is designed to contain an accumulation of materials that are fed to or produced by a process unit, and is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support.

Product tank drawdown means any material or mixture of materials discharged from a product tank for the purpose of removing water or other contaminants from the product tank.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials.

Segregated stormwater sewer system means a drain and collection system designed and operated for the sole purpose of collecting rainfall runoff at a facility, and which is segregated from all other individual drain systems.

Sewer line means a lateral, trunk line, branch line, or other enclosed conduit used to convey waste to a downstream waste management unit.

Slop oil means the floating oil and solids that accumulate on the surface of an oil-water separator.

Sour water stream means a stream that:

(1) Contains ammonia or sulfur compounds (usually hydrogen sulfide) at concentrations of 10 ppm by weight or more;

(2) Is generated from separation of water from a feed stock, intermediate, or product that contained ammonia or sulfur compounds; and

(3) Requires treatment to remove the ammonia or sulfur compounds.

Sour water stripper means a unit that:

(1) Is designed and operated to remove ammonia or sulfur compounds (usually hydrogen sulfide) from sour water streams;

(2) Has the sour water streams transferred to the stripper through hard piping or other enclosed system; and

(3) Is operated in such a manner that the offgases are sent to a sulfur recovery unit, processing unit, incinerator, flare, or other combustion device.

Surface impoundment means a waste management unit which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid wastes or waste containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

Tank means a stationary waste management unit that is designed to contain an accumulation of waste and is constructed primarily of nonearthen materials (e.g., wood, concrete, steel, plastic) which provide structural support.

Treatment process means a stream stripping unit, thin-film evaporation unit, waste incinerator, or any other process used to comply with § 61.348 of this subpart.

Vapor-mounted seal means a foam-filled primary seal mounted continuously around the perimeter of a waste management unit so there is an annular vapor space underneath the seal. The annular vapor space is bounded by the bottom of the primary seal, the unit wall, the liquid surface, and the floating roof.

Waste means any material resulting from industrial, commercial, mining or agricultural operations, or from community activities that is discarded or is being accumulated, stored, or physically, chemically, thermally, or biologically treated prior to being discarded, recycled, or discharged.

Waste management unit means a piece of equipment, structure, or transport mechanism used in handling, storage, treatment, or disposal of waste. Examples of a waste management unit include a tank, surface impoundment, container, oil-water separator, individual drain system, steam stripping unit, thin-film evaporation unit, waste incinerator, and landfill.

Waste stream means the waste generated by a particular process unit, product tank, or waste management unit. The characteristics of the waste stream (e.g., flow rate, benzene concentration, water content) are determined at the point of waste generation. Examples of a waste stream include process wastewater, product tank drawdown, sludge and slop oil removed from waste management units, and landfill leachate.

Wastewater treatment system means any component, piece of equipment, or installation that receives, manages, or treats process wastewater, product tank drawdown, or landfill leachate prior to direct or

indirect discharge in accordance with the National Pollutant Discharge Elimination System permit regulations under 40 CFR part 122. These systems typically include individual drain systems, oil-water separators, air flotation units, equalization tanks, and biological treatment units.

Water seal controls means a seal pot, p-leg trap, or other type of trap filled with water (e.g., flooded sewers that maintain water levels adequate to prevent air flow through the system) that creates a water barrier between the sewer line and the atmosphere. The water level of the seal must be maintained in the vertical leg of a drain in order to be considered a water seal.

§ 61.342 Standards: General.

(a) An owner or operator of a facility at which the total annual benzene quantity from facility waste is less than 10 megagrams per year (Mg/yr) (11 ton/yr) shall be exempt from the requirements of paragraphs (b) and (c) of this section. The total annual benzene quantity from facility waste is the sum of the annual benzene quantity for each waste stream at the facility that has a flow-weighted annual average water content greater than 10 percent or that is mixed with water, or other wastes, at any time and the mixture has an annual average water content greater than 10 percent. The benzene quantity in a waste stream is to be counted only once without multiple counting if other waste streams are mixed with or generated from the original waste stream. Other specific requirements for calculating the total annual benzene waste quantity are as follows:

(1) Wastes that are exempted from control under § 61.342(c)(2) and 61.342(c)(3) are included in the calculation of the total annual benzene quantity if they have an annual average water content greater than 10 percent, or if they are mixed with water or other wastes at any time and the mixture has an annual average water content greater than 10 percent.

(2) The benzene in a material subject to this subpart that is sold is included in the calculation of the total annual benzene quantity if the material has an annual average water content greater than 10 percent.

(3) Benzene in wastes generated by remediation activities conducted at the facility, such as the excavation of contaminated soil, pumping and treatment of groundwater, and the recovery of product from soil or groundwater, are not included in the calculation of total annual benzene quantity for that facility. If the facility's total annual benzene quantity is 10 Mg/yr (11 ton/yr) or more, wastes generated by remediation activities are subject to the requirements of paragraphs (c) through (h) of this section. If the facility is managing remediation waste generated offsite, the benzene in this waste shall be included in the calculation of total annual benzene quantity in facility waste, if the waste streams have an annual average water content greater than 10 percent, or if they are mixed with water or other wastes at any time and the mixture has an annual average water content greater than 10 percent.

(4) The total annual benzene quantity is determined based upon the quantity of benzene in the waste before any waste treatment occurs to remove the benzene except as specified in § 61.355(c)(1)(i) (A) through (C).

(b) Each owner or operator of a facility at which the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr (11 ton/yr) as determined in paragraph (a) of this section shall be in compliance with the requirements of paragraphs (c) through (h) of this section no later than 90 days following the effective date, unless a waiver of compliance has been obtained under § 61.11, or by the initial startup for a new source with an initial startup after the effective date.

(1) The owner or operator of an existing source unable to comply with the rule within the required time may request a waiver of compliance under § 61.10.

(2) As part of the waiver application, the owner or operator shall submit to the Administrator a plan under § 61.10(b)(3) that is an enforceable commitment to obtain environmental benefits to mitigate the benzene emissions that result from extending the compliance date. The plan shall include the following information:

(i) A description of the method of compliance, including the control approach, schedule for installing controls, and quantity of the benzene emissions that result from extending the compliance date;

(ii) If the control approach involves a compliance strategy designed to obtain integrated compliance with multiple regulatory requirements, a description of the other regulations involved and their effective dates; and

(iii) A description of the actions to be taken at the facility to obtain mitigating environmental benefits, including how the benefits will be obtained, the schedule for these actions, and an estimate of the quantifiable benefits that directly result from these actions.

(c) Each owner or operator of a facility at which the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr (11 ton/yr) as determined in paragraph (a) of this section shall manage and treat the facility waste as follows:

(1) For each waste stream that contains benzene, including (but not limited to) organic waste streams that contain less than 10 percent water and aqueous waste streams, even if the wastes are not discharged to an individual drain system, the owner or operator shall:

(i) Remove or destroy the benzene contained in the waste using a treatment process or wastewater treatment system that complies with the standards specified in § 61.348 of this subpart.

(ii) Comply with the standards specified in § 61.343 through 61.347 of this subpart for each waste management unit that receives or manages the waste stream prior to and during treatment of the waste stream in accordance with paragraph (c)(1)(i) of this section.

(iii) Each waste management unit used to manage or treat waste streams that will be recycled to a process shall comply with the standards specified in § 61.343 through 61.347. Once the waste stream is recycled to a process, including to a tank used for the storage of production process feed, product, or product intermediates, unless this tank is used primarily for the storage of wastes, the material is no longer subject to paragraph (c) of this section.

(2) A waste stream is exempt from paragraph (c)(1) of this section provided that the owner or operator demonstrates initially and, thereafter, at least once per year that the flow-weighted annual average benzene concentration for the waste stream is less than 10 ppmw as determined by the procedures specified in § 61.355(c)(2) or § 61.355(c)(3).

(3) A waste stream is exempt from paragraph (c)(1) of this section provided that the owner or operator demonstrates initially and, thereafter, at least once per year that the conditions specified in either paragraph (c)(3)(i) or (c)(3)(ii) of this section are met.

(i) The waste stream is process wastewater that has a flow rate less than 0.02 liters per minute (0.005 gallons per minute) or an annual wastewater quantity of less than 10 Mg/yr (11 ton/yr); or

(ii) All of the following conditions are met:

(A) The owner or operator does not choose to exempt process wastewater under paragraph (c)(3)(i) of this section,

(B) The total annual benzene quantity in all waste streams chosen for exemption in paragraph (c)(3)(ii) of this section does not exceed 2.0 Mg/yr (2.2 ton/yr) as determined in the procedures in § 61.355(j), and

(C) The total annual benzene quantity in a waste stream chosen for exemption, including process unit turnaround waste, is determined for the year in which the waste is generated.

(d) As an alternative to the requirements specified in paragraphs (c) and (e) of this section, an owner or operator of a facility at which the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr (11 ton/yr) as determined in paragraph (a) of this section may elect to manage and treat the facility waste as follows:

(1) The owner or operator shall manage and treat facility waste other than process wastewater in accordance with the requirements of paragraph (c)(1) of this section.

(2) The owner or operator shall manage and treat process wastewater in accordance with the following requirements:

(i) Process wastewater shall be treated to achieve a total annual benzene quantity from facility process wastewater less than 1 Mg/yr (1.1 ton/yr). Total annual benzene from facility process wastewater shall be determined by adding together the annual benzene quantity at the point of waste generation for each untreated process wastewater stream plus the annual benzene quantity exiting the treatment process for each process wastewater stream treated in accordance with the requirements of paragraph (c)(1)(i) of this section.

(ii) Each treated process wastewater stream identified in paragraph (d)(2)(i) of this section shall be managed and treated in accordance with paragraph (c)(1) of this section.

(iii) Each untreated process wastewater stream identified in paragraph (d)(2)(i) of this section is exempt from the requirements of paragraph (c)(1) of this section.

(e) As an alternative to the requirements specified in paragraphs (c) and (d) of this section, an owner or operator of a facility at which the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr (11 ton/yr) as determined in paragraph (a) of this section may elect to manage and treat the facility waste as follows:

(1) The owner or operator shall manage and treat facility waste with a flow-weighted annual average water content of less than 10 percent in accordance with the requirements of paragraph (c)(1) of this section; and

(2) The owner or operator shall manage and treat facility waste (including remediation and process unit turnaround waste) with a flow-weighted annual average water content of 10 percent or greater, on a volume basis as total water, and each waste stream that is mixed with water or wastes at any time such

that the resulting mixture has an annual water content greater than 10 percent, in accordance with the following:

(i) The benzene quantity for the wastes described in paragraph (e)(2) of this section must be equal to or less than 6.0 Mg/yr (6.6 ton/yr), as determined in § 61.355(k). Wastes as described in paragraph (e)(2) of this section that are transferred offsite shall be included in the determination of benzene quantity as provided in § 61.355(k). The provisions of paragraph (f) of this section shall not apply to any owner or operator who elects to comply with the provisions of paragraph (e) of this section.

(ii) The determination of benzene quantity for each waste stream defined in paragraph (e)(2) of this section shall be made in accordance with § 61.355(k).

(f) Rather than treating the waste onsite, an owner or operator may elect to comply with paragraph (c)(1)(i) of this section by transferring the waste offsite to another facility where the waste is treated in accordance with the requirements of paragraph (c)(1)(i) of this section. The owner or operator transferring the waste shall:

(1) Comply with the standards specified in § 61.343 through 61.347 of this subpart for each waste management unit that receives or manages the waste prior to shipment of the waste offsite.

(2) Include with each offsite waste shipment a notice stating that the waste contains benzene which is required to be managed and treated in accordance with the provisions of this subpart.

(g) Compliance with this subpart will be determined by review of facility records and results from tests and inspections using methods and procedures specified in § 61.355 of this subpart.

(h) Permission to use an alternative means of compliance to meet the requirements of § 61.342 through 61.352 of this subpart may be granted by the Administrator as provided in § 61.353 of this subpart.

§ 61.343 Standards: Tanks.

(a) Except as provided in paragraph (b) of this section and in § 61.351, the owner or operator must meet the standards in paragraph (a)(1) or (2) of this section for each tank in which the waste stream is placed in accordance with § 61.342 (c)(1)(ii). The standards in this section apply to the treatment and storage of the waste stream in a tank, including dewatering.

(1) The owner or operator shall install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device.

(i) The fixed-roof shall meet the following requirements:

(A) The cover and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart.

(B) Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair.

(C) If the cover and closed-vent system operate such that the tank is maintained at a pressure less than atmospheric pressure, then paragraph (a)(1)(i)(B) of this section does not apply to any opening that meets all of thefollowing conditions:

(*1*) The purpose of the opening is to provide dilution air to reduce the explosion hazard;

(*2*) The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h); and

(*3*) The pressure is monitored continuously to ensure that the pressure in the tank remains below atmospheric pressure.

(ii) The closed-vent system and control device shall be designed and operated in accordance with the requirements of § 61.349 of this subpart.

(2) The owner or operator must install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in paragraph (e) of this section.

(b) For a tank that meets all the conditions specified in paragraph (b)(1) of this section, the owner or operator may elect to comply with paragraph (b)(2) of this section as an alternative to the requirements specified in paragraph (a)(1) of this section.

(1) The waste managed in the tank complying with paragraph (b)(2) of this section shall meet all of the following conditions:

(i) Each waste stream managed in the tank must have a flow-weighted annual average water content less than or equal to 10 percent water, on a volume basis as total water.

(ii) The waste managed in the tank either:

(A) Has a maximum organic vapor pressure less than 5.2 kilopascals (kPa) (0.75 pounds per square inch (psi));

(B) Has a maximum organic vapor pressure less than 27.6 kPa (4.0 psi) and is managed in a tank having design capacity less than 151 m^3 (40,000 gal); or

(C) Has a maximum organic vapor pressure less than 76.6 kPa (11.1 psi) and is managed in a tank having a design capacity less than 75 m^3 (20,000 gal).

(2) The owner or operator shall install, operate, and maintain a fixed roof as specified in paragraph (a)(1)(i).

(3) For each tank complying with paragraph (b) of this section, one or more devices which vent directly to the atmosphere may be used on the tank provided each device remains in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the tank or cover resulting from filling or emptying the tank, diurnal temperature changes, atmospheric pressure changes or malfunction of the unit in accordance with good engineering and safety practices for handling flammable, explosive, or other hazardous materials.

(c) Each fixed-roof, seal, access door, and all other openings shall be checked by visual inspection initially and quarterly thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly.

(d) Except as provided in § 61.350 of this subpart, when a broken seal or gasket or other problem is identified, or when detectable emissions are measured, first efforts at repair shall be made as soon as practicable, but not later than 45 calendar days after identification.

(e) Each owner or operator who controls air pollutant emissions by using an enclosure vented through a closed-vent system to a control device must meet the requirements specified in paragraphs (e)(1) through (4) of this section.

(1) The tank must be located inside a total enclosure. The enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T -- Criteria for and Verification of a Permanent or Temporary Total Enclosure" in 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator must perform the verification procedure for the enclosure as specified in section 5.0 of Procedure T initially when the enclosure is first installed and, thereafter, annually. A facility that has conducted an initial compliance demonstration and that performs annual compliance demonstrations in accordance with the requirements for Tank Level 2 control requirements 40 CFR 264.1084(i) or 40 CFR 265(i) is not required to make repeat demonstrations of initial and continuous compliance for the purposes of this subpart.

(2) The enclosure must be vented through a closed-vent system to a control device that is designed and operated in accordance with the standards for control devices specified in § 61.349.

(3) Safety devices, as defined in this subpart, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of paragraphs (e)(1) and (2) of this section.

(4) The closed-vent system must be designed and operated in accordance with the requirements of § 61.349.

§ 61.344 Standards: Surface impoundments.

(a) The owner or operator shall meet the following standards for each surface impoundment in which waste is placed in accordance with § 61.342(c)(1)(ii) of this subpart:

(1) The owner or operator shall install, operate, and maintain on each surface impoundment a cover (e.g., air-supported structure or rigid cover) and closed-vent system that routes all organic vapors vented from the surface impoundment to a control device.

(i) The cover shall meet the following requirements:

(A) The cover and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart.

(B) Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the surface impoundment except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair.

(C) If the cover and closed-vent system operate such that the enclosure of the surface impoundment is maintained at a pressure less than atmospheric pressure, then paragraph (a)(1)(i)(B) of this section does not apply to any opening that meets all of the following conditions:

(*1*) The purpose of the opening is to provide dilution air to reduce the explosion hazard;

(*2*) The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart; and

(*3*) The pressure is monitored continuously to ensure that the pressure in the enclosure of the surface impoundment remains below atmospheric pressure.

(D) The cover shall be used at all times that waste is placed in the surface impoundment except during removal of treatment residuals in accordance with 40 CFR 268.4 or closure of the surface impoundment in accordance with 40 CFR 264.228. (Note: the treatment residuals generated by these activities may be subject to the requirements of this part.)

(ii) The closed-vent system and control device shall be designed and operated in accordance with § 61.349 of this subpart.

(b) Each cover seal, access hatch, and all other openings shall be checked by visual inspection initially and quarterly thereafter to ensure that no cracks or gaps occur and that access hatches and other openings are closed and gasketed properly.

(c) Except as provided in § 61.350 of this subpart, when a broken seal or gasket or other problem is identified, or when detectable emissions are measured, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification.

§ 61.345 Standards: Containers.

(a) The owner or operator shall meet the following standards for each container in which waste is placed in accordance with § 61.342(c)(1)(ii) of this subpart:

(1) The owner or operator shall install, operate, and maintain a cover on each container used to handle, transfer, or store waste in accordance with the following requirements:

(i) The cover and all openings (e.g., bungs, hatches, and sampling ports) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart.

(ii) Except as provided in paragraph (a)(4) of this section, each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the

container except when it is necessary to use the opening for waste loading, removal, inspection, or sampling.

(2) When a waste is transferred into a container by pumping, the owner or operator shall perform the transfer using a submerged fill pipe. The submerged fill pipe outlet shall extend to within two fill pipe diameters of the bottom of the container while the container is being loaded. During loading of the waste, the cover shall remain in place and all openings shall be maintained in a closed, sealed position except for those openings required for the submerged fill pipe, those openings required for venting of the container to prevent physical damage or permanent deformation of the container or cover, and any openings complying with paragraph (a)(4) of this section.

(3) Treatment of a waste in a container, including aeration, thermal or other treatment, must be performed by the owner or operator in a manner such that while the waste is being treated the container meets the standards specified in paragraphs (a)(3)(i) through (iii) of this section, except for covers and closed-vent systems that meet the requirements in paragraph (a)(4) of this section.

(i) The owner or operator must either:

(A) Vent the container inside a total enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of paragraphs (a)(3)(ii)(A) and (B) of this section; or

(B) Vent the covered or closed container directly through a closed-vent system to a control device in accordance with the requirements of paragraphs (a)(3)(ii)(B) and (C) of this section.

(ii) The owner or operator must meet the following requirements, as applicable to the type of air emission control equipment selected by the owner or operator:

(A) The total enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure as specified in section 5 of the "Procedure T -- Criteria for and Verification of a Permanent or Temporary Total Enclosure" in 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator must perform the verification procedure for the enclosure as specified in section 5.0 of "Procedure T -- Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually. A facility that has conducted an initial compliance demonstration and that performs annual compliance demonstrations in accordance with the Container Level 3 control requirements in 40 CFR 264.1086(e)(2)(i) or 40 CFR 265.1086(e)(2)(i) is not required to make repeat demonstrations of initial and continuous compliance for the purposes of this subpart.

(B) The closed-vent system and control device must be designed and operated in accordance with the requirements of § 61.349.

(C) For a container cover, the cover and all openings (*e.g.*, doors, hatches) must be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in § 61.355(h).

(iii) Safety devices, as defined in this subpart, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of paragraph (a)(3)(i) of this section.

(4) If the cover and closed-vent system operate such that the container is maintained at a pressure less than atmospheric pressure, the owner or operator may operate the system with an opening that is not sealed and kept closed at all times if the following conditions are met:

(i) The purpose of the opening is to provide dilution air to reduce the explosion hazard;

(ii) The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by methods specified in § 61.355(h); and

(iii) The pressure is monitored continuously to ensure that the pressure in the container remains below atmospheric pressure.

(b) Each cover and all openings shall be visually inspected initially and quarterly thereafter to ensure that they are closed and gasketed properly.

(c) Except as provided in § 61.350 of this subpart, when a broken seal or gasket or other problem is identified, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification.

§ 61.346 Standards: Individual drain systems.

(a) Except as provided in paragraph (b) of this section, the owner or operator shall meet the following standards for each individual drain system in which waste is placed in accordance with § 61.342(c)(1)(ii) of this subpart:

(1) The owner or operator shall install, operate, and maintain on each drain system opening a cover and closed-vent system that routes all organic vapors vented from the drain system to a control device.

(i) The cover shall meet the following requirements:

(A) The cover and all openings (e.g., access hatches, sampling ports) shall be designed to operate with no detactable emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart.

(B) Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the drain system except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair.

(C) If the cover and closed-vent system operate such that the individual drain system is maintained at a pressure less than atmospheric pressure, then paragraph (a)(1)(i)(B) of this section does not apply to any opening that meets all of the following conditions:

(*1*) The purpose of the opening is to provide dilution air to reduce the explosion hazard;

(*2*) The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h); and

(*3*) The pressure is monitored continuously to ensure that the pressure in the individual drain system remains below atmospheric pressure.

(ii) The closed-vent system and control device shall be designed and operated in accordance with § 61.349 of this subpart.

(2) Each cover seal, access hatch, and all other openings shall be checked by visual inspection initially and quarterly thereafter to ensure that no cracks or gaps occur and that access hatches and other openings are closed and gasketed properly.

(3) Except as provided in § 61.350 of this subpart, when a broken seal or gasket or other problem is identified, or when detectable emissions are measured, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification.

(b) As an alternative to complying with paragraph (a) of this section, an owner or operator may elect to comply with the following requirements:

(1) Each drain shall be equipped with water seal controls or a tightly sealed cap or plug.

(2) Each junction box shall be equipped with a cover and may have a vent pipe. The vent pipe shall be at least 90 cm (3 ft) in length and shall not exceed 10.2 cm (4 in) in diameter.

(i) Junction box covers shall have a tight seal around the edge and shall be kept in place at all times, except during inspection and maintenance.

(ii) One of the following methods shall be used to control emissions from the junction box vent pipe to the atmosphere:

(A) Equip the junction box with a system to prevent the flow of organic vapors from the junction box vent pipe to the atmosphere during normal operation. An example of such a system includes use of water seal controls on the junction box. A flow indicator shall be installed, operated, and maintained on each junction box vent pipe to ensure that organic vapors are not vented from the junction box to the atmosphere during normal operation.

(B) Connect the junction box vent pipe to a closed-vent system and control device in accordance with § 61.349 of this subpart.

(3) Each sewer line shall not be open to the atmosphere and shall be covered or enclosed in a manner so as to have no visual gaps or cracks in joints, seals, or other emission interfaces.

(4) Equipment installed in accordance with paragraphs (b)(1), (b)(2), or (b)(3) of this section shall be inspected as follows:

(i) Each drain using water seal controls shall be checked by visual or physical inspection initially and thereafter quarterly for indications of low water levels or other conditions that would reduce the effectiveness of water seal controls.

(ii) Each drain using a tightly sealed cap or plug shall be visually inspected initially and thereafter quarterly to ensure caps or plugs are in place and properly installed.

(iii) Each junction box shall be visually inspected initially and thereafter quarterly to ensure that the cover is in place and to ensure that the cover has a tight seal around the edge.

(iv) The unburied portion of each sewer line shall be visually inspected initially and thereafter quarterly for indication of cracks, gaps, or other problems that could result in benzene emissions.

(5) Except as provided in § 61.350 of this subpart, when a broken seal, gap, crack or other problem is identified, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification.

§ 61.347 Standards: Oil-water separators.

(a) Except as provided in § 61.352 of this subpart, the owner or operator shall meet the following standards for each oil-water separator in which waste is placed in accordance with § 61.342(c)(1)(ii) of this subpart:

(1) The owner or operator shall install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the oil-water separator to a control device.

(i) The fixed-roof shall meet the following requirements:

(A) The cover and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart.

(B) Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the oil-water separator except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair.

(C) If the cover and closed-vent system operate such that the oil-water separator is maintained at a pressure less than atmospheric pressure, then paragraph (a)(1)(i)(B) of this section does not apply to any opening that meets all of the following conditions:

(*1*) The purpose of the opening is to provide dilution air to reduce the explosion hazard;

(*2*) The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h); and

(*3*) The pressure is monitored continuously to ensure that the pressure in the oil-water separator remains below atmospheric pressure.

(ii) The closed-vent system and control device shall be designed and operated in accordance with the requirements of § 61.349 of this subpart.

(b) Each cover seal, access hatch, and all other openings shall be checked by visual inspection initially and quarterly thereafter to ensure that no cracks or gaps occur between the cover and oil-water separator wall and that access hatches and other openings are closed and gasketed properly.

(c) Except as provided in § 61.350 of this subpart, when a broken seal or gasket or other problem is identified, or when detectable emissions are measured, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification.

§ 61.348 Standards: Treatment processes.

(a) Except as provided in paragraph (a)(5) of this section, the owner or operator shall treat the waste stream in accordance with the following requirements:

(1) The owner or operator shall design, install, operate, and maintain a treatment process that either:

(i) Removes benzene from the waste stream to a level less than 10 parts per million by weight (ppmw) on a flow-weighted annual average basis,

(ii) Removes benzene from the waste stream by 99 percent or more on a mass basis, or

(iii) Destroys benzene in the waste stream by incinerating the waste in a combustion unit that achieves a destruction efficiency of 99 percent or greater for benzene.

(2) Each treatment process complying with paragraphs (a)(1)(i) or (a)(1)(ii) of this section shall be designed and operated in accordance with the appropriate waste management unit standards specified in § 61.343 through 61.347 of this subpart. For example, if a treatment process is a tank, then the owner or operator shall comply with § 61.343 of this subpart.

(3) For the purpose of complying with the requirements specified in paragraph (a)(1)(i) of this section, the intentional or unintentional reduction in the benzene concentration of a waste stream by dilution of the waste stream with other wastes or materials is not allowed.

(4) An owner or operator may aggregate or mix together individual waste streams to create a combined waste stream for the purpose of facilitating treatment of waste to comply with the requirements of paragraph (a)(1) of this section except as provided in paragraph (a)(5) of this section.

(5) If an owner or operator aggregates or mixes any combination of process wastewater, product tank drawdown, or landfill leachate subject to § 61.342(c)(1) of this subpart together with other waste streams to create a combined waste stream for the purpose of facilitating management or treatment of waste in a wastewater treatment system, then the wastewater treatment system shall be operated in accordance with paragraph (b) of this section. These provisions apply to above-ground wastewater treatment systems as well as those that are at or below ground level.

(b) Except for facilities complying with § 61.342(e), the owner or operator that aggregates or mixes individual waste streams as defined in paragraph (a)(5) of this section for management and treatment in a wastewater treatment system shall comply with the following requirements:

(1) The owner or operator shall design and operate each waste management unit that comprises the wastewater treatment system in accordance with the appropriate standards specified in § 61.343 through 61.347 of this subpart.

(2) The provisions of paragraph (b)(1) of this section do not apply to any waste management unit that the owner or operator demonstrates to meet the following conditions initially and, thereafter, at least once per year:

(i) The benzene content of each waste stream entering the waste management unit is less than 10 ppmw on a flow-weighted annual average basis as determined by the procedures specified in § 61.355(c) of this subpart; and

(ii) The total annual benzene quantity contained in all waste streams managed or treated in exempt waste management units comprising the facility wastewater treatment systems is less than 1 Mg/yr (1.1 ton/yr). For this determination, total annual benzene quantity shall be calculated as follows:

(A) The total annual benzene quantity shall be calculated as the sum of the individual benzene quantities determined at each location where a waste stream first enters an exempt waste management unit. The benzene quantity discharged from an exempt waste management unit shall not be included in this calculation.

(B) The annual benzene quantity in a waste stream managed or treated in an enhanced biodegradation unit shall not be included in the calculation of the total annual benzene quantity, if the enhanced biodegradation unit is the first exempt unit in which the waste is managed or treated. A unit shall be considered enhanced biodegradation if it is a suspended-growth process that generates biomass, uses recycled biomass, and periodically removes biomass from the process. An enhanced biodegradation unit typically operates at a food-to-microorganism ratio in the range of 0.05 to 1.0 kg of biological oxygen demand per kg of biomass per day, a mixed liquor suspended solids ratio in the range of 1 to 8 grams per liter (0.008 to 0.7 pounds per liter), and a residence time in the range of 3 to 36 hours.

(c) The owner and operator shall demonstrate that each treatment process or wastewater treatment system unit, except as provided in paragraph (d) of this section, achieves the appropriate conditions specified in paragraphs (a) or (b) of this section in accordance with the following requirements:

(1) Engineering calculations in accordance with requirements specified in § 61.356(e) of this subpart; or

(2) Performance tests conducted using the test methods and procedures that meet the requirements specified in § 61.355 of this subpart.

(d) A treatment process or waste stream is in compliance with the requirements of this subpart and exempt from the requirements of paragraph (c) of this section provided that the owner or operator documents that the treatment process or waste stream is in compliance with other regulatory requirements as follows:

(1) The treatment process is a hazardous waste incinerator for which the owner or operator has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 264, subpart O;

(2) The treatment process is an industrial furnace or boiler burning hazardous waste for energy recovery for which the owner or operator has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart D;

(3) The waste stream is treated by a means or to a level that meets benzene-specific treatment standards in accordance with the Land Disposal Restrictions under 40 CFR part 268, and the treatment process is designed and operated with a closed-vent system and control device meeting the requirements of § 61.349 of this subpart;

(4) The waste stream is treated by a means or to a level that meets benzene-specific effluent limitations or performance standards in accordance with the Effluent Guidelines and Standards under 40 CFR parts 401-464, and the treatment process is designed and operated with a closed-vent system and control device meeting the requirements of § 61.349 of this subpart; or

(5) The waste stream is discharged to an underground injection well for which the owner or operator has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 122.

(e) Except as specified in paragraph (e)(3) of this section, if the treatment process or wastewater treatment system unit has any openings (e.g., access doors, hatches, etc.), all such openings shall be sealed (e.g., gasketed, latched, etc.) and kept closed at all times when waste is being treated, except during inspection and maintenance.

(1) Each seal, access door, and all other openings shall be checked by visual inspections initially and quarterly thereafter to ensure that no cracks or gaps occur and that openings are closed and gasketed properly.

(2) Except as provided in § 61.350 of this subpart, when a broken seal or gasket or other problem is identified, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification.

(3) If the cover and closed-vent system operate such that the treatment process and wastewater treatment system unit are maintained at a pressure less than atmospheric pressure, the owner or operator may operate the system with an opening that is not sealed and kept closed at all times if the following conditions are met:

(i) The purpose of the opening is to provide dilution air to reduce the explosion hazard;

(ii) The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h); and

(iii) The pressure is monitored continuously to ensure that the pressure in the treatment process and wastewater treatment system unit remain below atmospheric pressure.

(f) Except for treatment processes complying with paragraph (d) of this section, the Administrator may request at any time an owner or operator demonstrate that a treatment process or wastewater treatment system unit meets the applicable requirements specified in paragraphs (a) or (b) of this section by

conducting a performance test using the test methods and procedures as required in § 61.355 of this subpart.

(g) The owner or operator of a treatment process or wastewater treatment system unit that is used to comply with the provisions of this section shall monitor the unit in accordance with the applicable requirements in § 61.354 of this subpart.

§ 61.349 Standards: Closed-vent systems and control devices.

(a) For each closed-vent system and control device used to comply with standards in accordance with § 61.343 through 61.348 of this subpart, the owner or operator shall properly design, install, operate, and maintain the closed-vent system and control device in accordance with the following requirements:

(1) The closed-vent system shall:

(i) Be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart.

(ii) Vent systems that contain any bypass line that could divert the vent stream away from a control device used to comply with the provisions of this subpart shall install, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow away from the control device at least once every 15 minutes, except as provided in paragraph (a)(1)(ii)(B) of this section.

(A) The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere.

(B) Where the bypass line valve is secured in the closed position with a car-seal or a lock-and-key type configuration, a flow indicator is not required.

(iii) All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

(iv) For each closed-vent system complying with paragraph (a) of this section, one or more devices which vent directly to the atmosphere may be used on the closed-vent system provided each device remains in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the closed-vent system resulting from malfunction of the unit in accordance with good engineering and safety practices for handling flammable, explosive, or other hazardous materials.

(2) The control device shall be designed and operated in accordance with the following conditions:

(i) An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) shall meet one of the following conditions:

(A) Reduce the organic emissions vented to it by 95 weight percent or greater;

(B) Achieve a total organic compound concentration of 20 ppmv (as the sum of the concentrations for individual compounds using Method 18) on a dry basis corrected to 3 percent oxygen; or

(C) Provide a minimum residence time of 0.5 seconds at a minimum temperature of 760 °C (1,400 °F). If a boiler or process heater issued as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater.

(ii) A vapor recovery system (e.g., a carbon adsorption system or a condenser) shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater.

(iii) A flare shall comply with the requirements of 40 CFR 60.18.

(iv) A control device other than those described in paragraphs (a)(2) (i) through (iii) of this section may be used provided that the following conditions are met:

(A) The device shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater.

(B) The owner or operator shall develop test data and design information that documents the control device will achieve an emission control efficiency of either 95 percent or greater for organic compounds or 98 percent or greater for benzene.

(C) The owner or operator shall identify:

(*1*) The critical operating parameters that affect the emission control performance of the device;

(*2*) The range of values of these operating parameters that ensure the emission control efficiency specified in paragraph (a)(2)(iv)(A) of this section is maintained during operation of the device; and

(*3*) How these operating parameters will be monitored to ensure the proper operation and maintenance of the device.

(D) The owner or operator shall submit the information and data specified in paragraphs (a)(2)(iv) (B) and (C) of this section to the Administrator prior to operation of the alternative control device.

(E) The Administrator will determine, based on the information submitted under paragraph (a)(2)(iv)(D) of this section, if the control device subject to paragraph (a)(2)(iv) of this section meets the requirements of § 61.349. The control device subject to paragraph (a)(2)(iv) of this section may be operated prior to receiving approval from the Administrator. However, if the Administrator determines that the control device does not meet the requirements of § 61.349, the facility may be subject to enforcement action beginning from the time the control device began operation.

(b) Each closed-vent system and control device used to comply with this subpart shall be operated at all times when waste is placed in the waste management unit vented to the control device except when maintenance or repair of the waste management unit cannot be completed without a shutdown of the control device.

(c) An owner and operator shall demonstrate that each control device, except for a flare, achieves the appropriate conditions specified in paragraph (a)(2) of this section by using one of the following methods:

(1) Engineering calculations in accordance with requirements specified in § 61.356(f) of this subpart; or

(2) Performance tests conducted using the test methods and procedures that meet the requirements specified in § 61.355 of this subpart.

(d) An owner or operator shall demonstrate compliance of each flare in accordance with paragraph (a)(2)(iii) of this section.

(e) The Administrator may request at any time an owner or operator demonstrate that a control device meets the applicable conditions specified in paragraph (a)(2) of this section by conducting a performance test using the test methods and procedures as required in § 61.355, and for control devices subject to paragraph (a)(2)(iv) of this section, the Administrator may specify alternative test methods and procedures, as appropriate.

(f) Each closed-vent system and control device shall be visually inspected initially and quarterly thereafter. The visual inspection shall include inspection of ductwork and piping and connections to covers and control devices for evidence of visible defects such as holes in ductwork or piping and loose connections.

(g) Except as provided in § 61.350 of this subpart, if visible defects are observed during an inspection, or if other problems are identified, or if detectable emissions are measured, a first effort to repair the closed-vent system and control device shall be made as soon as practicable but no later than 5 calendar days after detection. Repair shall be completed no later than 15 calendar days after the emissions are detected or the visible defect is observed.

(h) The owner or operator of a control device that is used to comply with the provisions of this section shall monitor the control device in accordance with § 61.354(c) of this subpart.

§ 61.350 Standards: Delay of repair.

(a) Delay of repair of facilities or units that are subject to the provisions of this subpart will be allowed if the repair is technically impossible without a complete or partial facility or unit shutdown.

(b) Repair of such equipment shall occur before the end of the next facility or unit shutdown.

§ 61.351 Alternative standards for tanks.

(a) As an alternative to the standards for tanks specified in § 61.343 of this subpart, an owner or operator may elect to comply with one of the following:

(1) A fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1);

(2) An external floating roof meeting the requirements of 40 CFR 60.112b (a)(2); or

(3) An alternative means of emission limitation as described in 40 CFR 60.114b.

(b) If an owner or operator elects to comply with the provisions of this section, then the owner or operator is exempt from the provisions of § 61.343 of this subpart applicable to the same facilities.

§ 61.352 Alternative standards for oil-water separators.

(a) As an alternative to the standards for oil-water separators specified in § 61.347 of this subpart, an owner or operator may elect to comply with one of the following:

(1) A floating roof meeting the requirements in 40 CFR 60.693-2(a); or

(2) An alternative means of emission limitation as described in 40 CFR 60.694.

(b) For portions of the oil-water separator where it is infeasible to construct and operate a floating roof, such as over the weir mechanism, a fixed roof vented to a vapor control device that meets the requirements in § 61.347 and 61.349 of this subpart shall be installed and operated.

(c) Except as provided in paragraph (b) of this section, if an owner or operator elects to comply with the provisions of this section, then the owner or operator is exempt from the provisions in § 61.347 of this subpart applicable to the same facilities.

§ 61.353 Alternative means of emission limitation.

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in benzene emissions at least equivalent to the reduction in benzene emissions from the source achieved by the applicable design, equipment, work practice, or operational requirements in § 61.342 through 61.349, the Administrator will publish in the Federal Register a notice permitting the use of the alternative means for purposes of compliance with that requirement. The notice may condition the permission on requirements related to the operation and maintenance of the alternative means.

(b) Any notice under paragraph (a) of this section shall be published only after public notice and an opportunity for a hearing.

(c) Any person seeking permission under this section shall collect, verify, and submit to the Administrator information showing that the alternative means achieves equivalent emission reductions.

§ 61.354 Monitoring of operations.

(a) Except for a treatment process or waste stream complying with § 61.348(d), the owner or operator shall monitor each treatment process or wastewater treatment system unit to ensure the unit is properly operated and maintained by one of the following monitoring procedures:

(1) Measure the benzene concentration of the waste stream exiting the treatment process complying with § 61.348(a)(1)(i) at least once per month by collecting and analyzing one or more samples using the procedures specified in § 61.355(c)(3).

(2) Install, calibrate, operate, and maintain according to manufacturer's specifications equipment to continuously monitor and record a process parameter (or parameters) for the treatment process or wastewater treatment system unit that indicates proper system operation. The owner or operator shall inspect at least once each operating day the data recorded by the monitoring equipment (e.g., temperature monitor or flow indicator) to ensure that the unit is operating properly.

(b) If an owner or operator complies with the requirements of § 61.348(b), then the owner or operator shall monitor each wastewater treatment system to ensure the unit is properly operated and maintained by the appropriate monitoring procedure as follows:

(1) For the first exempt waste management unit in each waste treatment train, other than an enhanced biodegradation unit, measure the flow rate, using the procedures of § 61.355(b), and the benzene concentration of each waste stream entering the unit at least once per month by collecting and analyzing one or more samples using the procedures specified in § 61.355(c)(3).

(2) For each enhanced biodegradation unit that is the first exempt waste management unit in a treatment train, measure the benzene concentration of each waste stream entering the unit at least once per month by collecting and analyzing one or more samples using the procedures specified in § 61.355(c)(3).

(c) An owner or operator subject to the requirements in § 61.349 of this subpart shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor the control device operation as specified in the following paragraphs, unless alternative monitoring procedures or requirements are approved for that facility by the Administrator. The owner or operator shall inspect at least once each operating day the data recorded by the monitoring equipment (e.g., temperature monitor or flow indicator) to ensure that the control device is operating properly.

(1) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. The temperature sensor shall be installed at a representative location in the combustion chamber.

(2) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature at two locations, and have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

(3) For a flare, a monitoring device in accordance with 40 CFR 60.18(f)(2) equipped with a continuous recorder.

(4) For a boiler or process heater having a design heat input capacity less than 44 MW (150 × 10^6 BTU/hr), a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. The temperature sensor shall be installed at a representative location in the combustion chamber.

(5) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW (150 × 10^6 BTU/hr), a monitoring device equipped with a continuous recorder to measure a parameter(s) that indicates good combustion operating practices are being used.

(6) For a condenser, either:

(i) A monitoring device equipped with a continuous recorder to measure either the concentration level of the organic compounds or the concentration level of benzene in the exhaust vent stream from the condenser; or

(ii) A temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature at two locations, and have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. One temperature sensor shall be installed at a location in the exhaust stream from the condenser, and a second temperature sensor shall be installed at a location in the coolant fluid exiting the condenser.

(7) For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon adsorber, either:

(i) A monitoring device equipped with a continuous recorder to measure either the concentration level of the organic compounds or the benzene concentration level in the exhaust vent stream from the carbon bed; or

(ii) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.

(8) For a vapor recovery system other than a condenser or carbon adsorption system, a monitoring device equipped with a continuous recorder to measure either the concentration level of the organic compounds or the benzene concentration level in the exhaust vent stream from the control device.

(9) For a control device subject to the requirements of § 61.349(a)(2)(iv), devices to monitor the parameters as specified in § 61.349(a)(2)(iv)(C).

(d) For a carbon adsorption system that does not regenerate the carbon bed directly on site in the control device (e.g., a carbon canister), either the concentration level of the organic compounds or the concentration level of benzene in the exhaust vent stream from the carbon adsorption system shall be monitored on a regular schedule, and the existing carbon shall be replaced with fresh carbon immediately when carbon breakthrough is indicated. The device shall be monitored on a daily basis or at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater. As an alternative to conducting this monitoring, an owner or operator may replace the carbon in the carbon adsorption system with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval that is determined by the maximum design flow rate and either the organic concentration or the benzene concentration in the gas stream vented to the carbon adsorption system.

(e) An alternative operation or process parameter may be monitored if it can be demonstrated that another parameter will ensure that the control device is operated in conformance with these standards and the control device's design specifications.

(f) Owners or operators using a closed-vent system that contains any bypass line that could divert a vent stream from a control device used to comply with the provisions of this subpart shall do the following:

(1) Visually inspect the bypass line valve at least once every month, checking the position of the valve and the condition of the car-seal or closure mechanism required under § 61.349(a)(1)(ii) to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.

(2) Visually inspect the readings from each flow monitoring device required by § 61.349(a)(1)(ii) at least once each operating day to check that vapors are being routed to the control device as required.

(g) Each owner or operator who uses a system for emission control that is maintained at a pressure less than atmospheric pressure with openings to provide dilution air shall install, calibrate, maintain, and

operate according to the manufacturer's specifications a device equipped with a continuous recorder to monitor the pressure in the unit to ensure that it is less than atmospheric pressure.

§ 61.355 Test methods, procedures, and compliance provisions.

(a) An owner or operator shall determine the total annual benzene quantity from facility waste by the following procedure:

(1) For each waste stream subject to this subpart having a flow-weighted annual average water content greater than 10 percent water, on a volume basis as total water, or is mixed with water or other wastes at any time and the resulting mixture has an annual average water content greater than 10 percent as specified in § 61.342(a), the owner or operator shall:

(i) Determine the annual waste quantity for each waste stream using the procedures specified in paragraph (b) of this section.

(ii) Determine the flow-weighted annual average benzene concentration for each waste stream using the procedures specified in paragraph (c) of this section.

(iii) Calculate the annual benzene quantity for each waste stream by multiplying the annual waste quantity of the waste stream times the flow-weighted annual average benzene concentration.

(2) Total annual benzene quantity from facility waste is calculated by adding together the annual benzene quantity for each waste stream generated during the year and the annual benzene quantity for each process unit turnaround waste annualized according to paragraph (b)(4) of this section.

(3) If the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr (11 ton/yr), then the owner or operator shall comply with the requirements of § 61.342 (c), (d), or (e).

(4) If the total annual benzene quantity from facility waste is less than 10 Mg/yr (11 ton/yr) but is equal to or greater than 1 Mg/yr (1.1 ton/yr), then the owner or operator shall:

(i) Comply with the record keeping requirements of § 61.356 and reporting requirements of § 61.357 of this subpart; and

(ii) Repeat the determination of total annual benzene quantity from facility waste at least once per year and whenever there is a change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr (11 ton/yr) or more.

(5) If the total annual benzene quantity from facility waste is less than 1 Mg/yr (1.1 ton/yr), then the owner or operator shall:

(i) Comply with the record keeping requirements of § 61.356 and reporting requirements of § 61.357 of this subpart; and

(ii) Repeat the determination of total annual benzene quantity from facility waste whenever there is a change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr (1.1 ton/yr) or more.

(6) The benzene quantity in a waste stream that is generated less than one time per year, except as provided for process unit turnaround waste in paragraph (b)(4) of this section, shall be included in the determination of total annual benzene quantity from facility waste for the year in which the waste is generated unless the waste stream is otherwise excluded from the determination of total annual benzene quantity from facility waste in accordance with paragraphs (a) through (c) of this section. The benzene quantity in this waste stream shall not be annualized or averaged over the time interval between the activities that resulted in generation of the waste, for purposes of determining the total annual benzene quantity from facility waste.

(b) For purposes of the calculation required by paragraph (a) of this section, an owner or operator shall determine the annual waste quantity at the point of waste generation, unless otherwise provided in paragraphs (b) (1), (2), (3), and (4) of this section, by one of the methods given in paragraphs (b) (5) through (7) of this section.

(1) The determination of annual waste quantity for sour water streams that are processed in sour water strippers shall be made at the point that the water exits the sour water stripper.

(2) The determination of annual waste quantity for wastes at coke by-product plants subject to and complying with the control requirements of § 61.132, 61.133, 61.134, or 61.139 of subpart L of this part shall be made at the location that the waste stream exits the process unit component or waste management unit controlled by that subpart or at the exit of the ammonia still, provided that the following conditions are met:

(i) The transfer of wastes between units complying with the control requirements of subpart L of this part, process units, and the ammonia still is made through hard piping or other enclosed system.

(ii) The ammonia still meets the definition of a sour water stripper in § 61.341.

(3) The determination of annual waste quantity for wastes that are received at hazardous waste treatment, storage, or disposal facilities from offsite shall be made at the point where the waste enters the hazardous waste treatment, storage, or disposal facility.

(4) The determination of annual waste quantity for each process unit turnaround waste generated only at 2 year or greater intervals, may be made by dividing the total quantity of waste generated during the most recent process unit turnaround by the time period (in the nearest tenth of a year) between the turnaround resulting in generation of the waste and the most recent preceding process turnaround for the unit. The resulting annual waste quantity shall be included in the calculation of the annual benzene quantity as provided in paragraph (a)(1)(iii) of this section for the year in which the turnaround occurs and for each subsequent year until the unit undergoes the next process turnaround. For estimates of total annual benzene quantity as specified in the 90-day report, required under § 61.357(a)(1), the owner or operator shall estimate the waste quantity generated during the most recent turnaround, and the time period between turnarounds in accordance with good engineering practices. If the owner or operator chooses not to annualize process unit turnaround waste, as specified in this paragraph, then the process unit turnaround waste quantity shall be included in the calculation of the annual benzene quantity for the year in which the turnaround occurs.

(5) Select the highest annual quantity of waste managed from historical records representing the most recent 5 years of operation or, if the facility has been in service for less than 5 years but at least 1 year, from historical records representing the total operating life of the facility;

(6) Use the maximum design capacity of the waste management unit; or

(7) Use measurements that are representative of maximum waste generation rates.

(c) For the purposes of the calculation required by § 61.355(a) of this subpart, an owner or operator shall determine the flow-weighted annual average benzene concentration in a manner that meets the requirements given in paragraph (c)(1) of this section using either of the methods given in paragraphs (c)(2) and (c)(3) of this section.

(1) The determination of flow-weighted annual average benzene concentration shall meet all of the following criteria:

(i) The determination shall be made at the point of waste generation except for the specific cases given in paragraphs (c)(1)(i)(A) through (D) of this section.

(A) The determination for sour water streams that are processed in sour water strippers shall be made at the point that the water exits the sour water stripper.

(B) The determination for wastes at coke by-product plants subject to and complying with the control requirements of § 61.132, 61.133, 61.134, or 61.139 of subpart L of this part shall be made at the location that the waste stream exits the process unit component or waste management unit controlled by that subpart or at the exit of the ammonia still, provided that the following conditions are met:

(*1*) The transfer of wastes between units complying with the control requirements of subpart L of this part, process units, and the ammonia still is made through hard piping or other enclosed system.

(*2*) The ammonia still meets the definition of a sour water stripper in § 61.341.

(C) The determination for wastes that are received from offsite shall be made at the point where the waste enters the hazardous waste treatment, storage, or disposal facility.

(D) The determination of flow-weighted annual average benzene concentration for process unit turnaround waste shall be made using either of the methods given in paragraph (c)(2) or (c)(3) of this section. The resulting flow-weighted annual average benzene concentration shall be included in the calculation of annual benzene quantity as provided in paragraph (a)(1)(iii) of this section for the year in which the turnaround occurs and for each subsequent year until the unit undergoes the next process unit turnaround.

(ii) Volatilization of the benzene by exposure to air shall not be used in the determination to reduce the benzene concentration.

(iii) Mixing or diluting the waste stream with other wastes or other materials shall not be used in the determination -- to reduce the benzene concentration.

(iv) The determination shall be made prior to any treatment of the waste that removes benzene, except as specified in paragraphs (c)(1)(i)(A) through (D) of this section.

(v) For wastes with multiple phases, the determination shall provide the weighted-average benzene concentration based on the benzene concentration in each phase of the waste and the relative proportion of the phases.

(2) *Knowledge of the waste.* The owner or operator shall provide sufficient information to document the flow-weighted annual average benzene concentration of each waste stream. Examples of information that could constitute knowledge include material balances, records of chemicals purchases, or previous test results provided the results are still relevant to the current waste stream conditions. If test data are used, then the owner or operator shall provide documentation describing the testing protocol and the means by which sampling variability and analytical variability were accounted for in the determination of the flow-weighted annual average benzene concentration for the waste stream. When an owner or operator and the Administrator do not agree on determinations of the flow-weighted annual average benzene concentration based on knowledge of the waste, the procedures under paragraph (c)(3) of this section shall be used to resolve the disagreement.

(3) Measurements of the benzene concentration in the waste stream in accordance with the following procedures:

(i) Collect a minimum of three representative samples from each waste stream. Where feasible, samples shall be taken from an enclosed pipe prior to the waste being exposed to the atmosphere.

(ii) For waste in enclosed pipes, the following procedures shall be used:

(A) Samples shall be collected prior to the waste being exposed to the atmosphere in order to minimize the loss of benzene prior to sampling.

(B) A static mixer shall be installed in the process line or in a by-pass line unless the owner or operator demonstrates that installation of a static mixer in the line is not necessary to accurately determine the benzene concentration of the waste stream.

(C) The sampling tap shall be located within two pipe diameters of the static mixer outlet.

(D) Prior to the initiation of sampling, sample lines and cooling coil shall be purged with at least four volumes of waste.

(E) After purging, the sample flow shall be directed to a sample container and the tip of the sampling tube shall be kept below the surface of the waste during sampling to minimize contact with the atmosphere.

(F) Samples shall be collected at a flow rate such that the cooling coil is able to maintain a waste temperature less than 10 °C (50 °F).

(G) After filling, the sample container shall be capped immediately (within 5 seconds) to leave a minimum headspace in the container.

(H) The sample containers shall immediately be cooled and maintained at a temperature below 10 °C (50 °F) for transfer to the laboratory.

(iii) When sampling from an enclosed pipe is not feasible, a minimum of three representative samples shall be collected in a manner to minimize exposure of the sample to the atmosphere and loss of benzene prior to sampling.

(iv) Each waste sample shall be analyzed using one of the following test methods for determining the benzene concentration in a waste stream:

(A) Method 8020, Aromatic Volatile Organics, in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 (incorporation by reference as specified in § 61.18 of this part);

(B) Method 8021, Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 (incorporation by reference as specified in § 61.18 of this part);

(C) Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 (incorporation by reference as specified in § 61.18 of this part);

(D) Method 8260, Gas Chromatography/Mass Spectrometry for Volatile Organics: Capillary Column Technique in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 (incorporation by reference as specified in § 61.18 of this part);

(E) Method 602, Purgeable Aromatics, as described in 40 CFR part 136, appendix A, Test Procedures for Analysis of Organic Pollutants, for wastewaters for which this is an approved EPA methods; or

(F) Method 624, Purgeables, as described in 40 CFR part 136, appendix A, Test Procedures for Analysis of Organic Pollutants, for wastewaters for which this is an approved EPA method.

(v) The flow-weighted annual average benzene concentration shall be calculated by averaging the results of the sample analyses as follows:

$$\bar{C} = \frac{1}{Q_t} \times \sum_{i=1}^{n} (Q_i)(C_i)$$

where:

C =Flow-weighted annual average benzene concentration for waste stream, ppmw.

Qt=Total annual waste quantity for waste stream, kg/yr (lb/yr).

n=Number of waste samples (at least 3).

Qi=Annual waste quantity for waste stream represented by Ci, kg/yr (lb/yr).

Ci=Measured concentration of benzene in waste sample i, ppmw.

(d) An owner or operator using performance tests to demonstrate compliance of a treatment process with § 61.348 (a)(1)(i) shall measure the flow-weighted annual average benzene concentration of the waste stream exiting the treatment process by collecting and analyzing a minimum of three representative samples of the waste stream using the procedures in paragraph (c)(3) of this section. The test shall be conducted under conditions that exist when the treatment process is operating at the highest inlet waste stream flow rate and benzene content expected to occur. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a test. The owner or

operator shall record all process information as is necessary to document the operating conditions during the test.

(e) An owner or operator using performance tests to demonstrate compliance of a treatment process with § 61.348(a)(1)(ii) of this subpart shall determine the percent reduction of benzene in the waste stream on a mass basis by the following procedure:

(1) The test shall be conducted under conditions that exist when the treatment process is operating at the highest inlet waste stream flow rate and benzene content expected to occur. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a test. The owner or operator shall record all process information as is necessary to document the operating conditions during the test.

(2) All testing equipment shall be prepared and installed as specified in the appropriate test methods.

(3) The mass flow rate of benzene entering the treatment process (Eb) shall be determined by computing the product of the flow rate of the waste stream entering the treatment process, as determined by the inlet flow meter, and the benzene concentration of the waste stream, as determined using the sampling and analytical procedures specified in paragraph (c)(2) or (c)(3) of this section. Three grab samples of the waste shall be taken at equally spaced time intervals over a 1-hour period. Each 1-hour period constitutes a run, and the performance test shall consist of a minimum of 3 runs conducted over a 3-hour period. The mass flow rate of benzene entering the treatment process is calculated as follows:

$$E_b = \frac{K}{n \times 10^6}\left[\sum_{i=1}^{n} V_i C_i\right]$$

where:

Eb = Mass flow rate of benzene entering the treatment process, kg/hr (lb/hr).

K = Density of the waste stream, kg/m3 (lb/ft3).

Vi = Average volume flow rate of waste entering the treatment process during each run i, m3/hr (ft3/hr).

Ci = Average concentration of benzene in the waste stream entering the treatment process during each run i, ppmw.

n = Number of runs.

10^6 = Conversion factor for ppmw.

(4) The mass flow rate of benzene exiting the treatment process (Ea) shall be determined by computing the product of the flow rate of the waste stream exiting the treatment process, as determined by the outlet flow meter or the inlet flow meter, and the benzene concentration of the waste stream, as determined using the sampling and analytical procedures specified in paragraph (c)(2) or (c)(3) of this section. Three grab samples of the waste shall be taken at equally spaced time intervals over a 1-hour period. Each 1-

hour period constitutes a run, and the performance test shall consist of a minimum of 3 runs conducted over the same 3-hour period at which the mass flow rate of benzene entering the treatment process is determined. The mass flow rate of benzene exiting the treatment process is calculated as follows:

$$E_a = \frac{K}{n \times 10^6}\left[\sum_{i=1}^{n} V_i C_i\right]$$

where:

Ea = Mass flow rate of benzene exiting the treatment process, kg/hr (lb/hr).

K = Density of the waste stream, kg/m3 (lb/ft3).

Vi = Average volume flow rate of waste exiting the treatment process during each run i, m3/hr (ft3/hr).

Ci = Average concentration of benzene in the waste stream exiting the treatment process during each run i, ppmw.

n = Number of runs.

10^6 = Conversion factor for ppmw.

(f) An owner or operator using performance tests to demonstrate compliance of a treatment process with § 61.348(a)(1)(iii) of this subpart shall determine the benzene destruction efficiency for the combustion unit by the following procedure:

(1) The test shall be conducted under conditions that exist when the combustion unit is operating at the highest inlet waste stream flow rate and benzene content expected to occur. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a test. The owner or operator shall record all process information necessary to document the operating conditions during the test.

(2) All testing equipment shall be prepared and installed as specified in the appropriate test methods.

(3) The mass flow rate of benzene entering the combustion unit shall be determined by computing the product of the flow rate of the waste stream entering the combustion unit, as determined by the inlet flow meter, and the benzene concentration of the waste stream, as determined using the sampling procedures in paragraph (c)(2) or (c)(3) of this section. Three grab samples of the waste shall be taken at equally spaced time intervals over a 1-hour period. Each 1-hour period constitutes a run, and the performance test shall consist of a minimum of 3 runs conducted over a 3-hour period. The mass flow rate of benzene into the combustion unit is calculated as follows:

$$E_b = \frac{K}{n \times 10^6}\left[\sum_{i=1}^{n} V_i C_i\right]$$

where:

Eb = Mass flow rate of benzene entering the combustion unit, kg/hr (lb/hr).

K = Density of the waste stream, kg/m3 (lb/ft3).

Vi = Average volume flow rate of waste entering the combustion unit during each run i, m3/hr (ft3/hr).

Ci = Average concentration of benzene in the waste stream entering the combustion unit during each run i, ppmw.

n = Number of runs.

10^6 = Conversion factor for ppmw.

(4) The mass flow rate of benzene exiting the combustion unit exhaust stack shall be determined as follows:

(i) The time period for the test shall not be less than 3 hours during which at least 3 stack gas samples are collected and be the same time period at which the mass flow rate of benzene entering the treatment process is determined. Each sample shall be collected over a 1-hour period (e.g., in a tedlar bag) to represent a time-integrated composite sample and each 1-hour period shall correspond to the periods when the waste feed is sampled.

(ii) A run shall consist of a 1-hour period during the test. For each run:

(A) The reading from each measurement shall be recorded;

(B) The volume exhausted shall be determined using Method 2, 2A, 2C, or 2D from appendix A of 40 CFR part 60, as appropriate.

(C) The average benzene concentration in the exhaust downstream of the combustion unit shall be determined using Method 18 from appendix A of 40 CFR part 60.

(iii) The mass of benzene emitted during each run shall be calculated as follows:

$$M_i = D_b VC\left(10^{-6}\right)$$

where:

Mi = Mass of benzene emitted during run i, kg (lb).

V = Volume of air-vapor mixture exhausted at standard conditions, m3 (ft3).

C = Concentration of benzene measured in the exhaust, ppmv.

Db = Density of benzene, 3.24 kg/m3 (0.202 lb/ft3).

10^6 = Conversion factor for ppmv.

(iv) The benzene mass emission rate in the exhaust shall be calculated as follows:

$$E_a = \left(\sum_{i=1}^{n} M_i \right) / T$$

where:

Ea = Mass flow rate of benzene emitted from the combustion unit, kg/hr (lb/hr).

Mi = Mass of benzene emitted from the combustion unit during run i, kg (lb).

T = Total time of all runs, hr.

n = Number of runs.

(5) The benzene destruction efficiency for the combustion unit shall be calculated as follows:

$$R = \frac{E_b - E_a}{E_b} \times 100$$

where:

R = Benzene destruction efficiency for the combustion unit, percent.

Eb = Mass flow rate of benzene entering the combustion unit, kg/hr (lb/hr).

Ea = Mass flow rate of benzene emitted from the combustion unit, kg/hr (lb/hr).

(g) An owner or operator using performance tests to demonstrate compliance of a wastewater treatment system unit with § 61.348(b) shall measure the flow-weighted annual average benzene concentration of the wastewater stream where the waste stream enters an exempt waste management unit by collecting and analyzing a minimum of three representative samples of the waste stream using the procedures in paragraph (c)(3) of this section. The test shall be conducted under conditions that exist when the wastewater treatment system is operating at the highest inlet wastewater stream flow rate and benzene content expected to occur. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a test. The owner or operator shall record all process information as is necessary to document the operating conditions during the test.

(h) An owner or operator shall test equipment for compliance with no detectable emissions as required in § 61.343 through 61.347, and § 61.349 of this subpart in accordance with the following requirements:

(1) Monitoring shall comply with Method 21 from appendix A of 40 CFR part 60.

(2) The detection instrument shall meet the performance criteria of Method 21.

(3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21.

(4) Calibration gases shall be:

(i) Zero air (less than 10 ppm of hydrocarbon in air); and

(ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

(5) The background level shall be determined as set forth in Method 21.

(6) The instrument probe shall be traversed around all potential leak interfaces as close as possible to the interface as described in Method 21.

(7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared to 500 ppm for determining compliance.

(i) An owner or operator using a performance test to demonstrate compliance of a control device with either the organic reduction efficiency requirement or the benzene reduction efficiency requirement specified under § 61.349(a)(2) shall use the following procedures:

(1) The test shall be conducted under conditions that exist when the waste management unit vented to the control device is operating at the highest load or capacity level expected to occur. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a test. The owner or operator shall record all process information necessary to document the operating conditions during the test.

(2) Sampling sites shall be selected using Method 1 or 1A from appendix A of 40 CFR part 60, as appropriate.

(3) The mass flow rate of either the organics or benzene entering and exiting the control device shall be determined as follows:

(i) The time period for the test shall not be less than 3 hours during which at least 3 stack gas samples are collected. Samples of the vent stream entering and exiting the control device shall be collected during the same time period. Each sample shall be collected over a 1-hour period (e.g., in a tedlar bag) to represent a time-integrated composite sample.

(ii) A run shall consist of a 1-hour period during the test. For each run:

(A) The reading from each measurement shall be recorded;

(B) The volume exhausted shall be determined using Method 2, 2A, 2C, or 2D from appendix A of 40 CFR part 60, as appropriate;

(C) The organic concentration or the benzene concentration, as appropriate, in the vent stream entering and exiting the control shall be determined using Method 18 from appendix A of 40 CFR part 60.

(iii) The mass of organics or benzene entering and exiting the control device during each run shall be calculated as follows:

$$M_{aj} = \frac{K_1 V_{aj}}{10^6}\left(\sum_{i=1}^{n} C_{ai} MW_i\right)$$

$$M_{bj} = \frac{K_1 V_{bj}}{10^6}\left(\sum_{i=1}^{n} C_{bi} MW_i\right)$$

where:

Maj = Mass of organics or benzene in the vent stream entering the control device during run j, kg (lb).

Mbj = Mass of organics or benzene in the vent stream exiting the control device during run j, kg (lb).

Vaj = Volume of vent stream entering the control device during run j, at standard conditions, m3 (ft3).

Vbj = Volume of vent stream exiting the control device during run j, at standard conditions, m3 (ft3).

Cai = Organic concentration of compound i or the benzene concentration measured in the vent stream entering the control device as determined by Method 18, ppm by volume on a dry basis.

Cbi = Organic concentration of compound i or the benzene concentration measured in the vent stream exiting the control device as determined by Method 18, ppm by volume on a dry basis.

MWi = Molecular weight of organic compound i in the vent stream, or the molecular weight of benzene, kg/kg-mol (lb/lb-mole).

n = Number of organic compounds in the vent stream; if benzene reduction efficiency is being demonstrated, then n=1.

K1 = Conversion factor for molar volume at standard conditions (293 K and 760 mm Hg (527 R and 14.7 psia))
= 0.0416 kg-mol/m3 (0.00118 lb-mol/ft3)

10^6=Conversion factor for ppmv.

(iv) The mass flow rate of organics or benzene entering and exiting the control device shall be calculated as follows:

$$E_a - \left(\sum_{j=1}^{n} M_{aj}\right) / T$$

$$E_b - \left(\sum_{j=1}^{n} M_{bj}\right) / T$$

where:

Ea = Mass flow rate of organics or benzene entering the control device, kg/hr (lb/hr).

Eb = Mass flow rate of organics or benzene exiting the control device, kg/hr (lb/hr).

Maj = Mass of organics or benzene in the vent stream entering the control device during run j, kg (lb).

Mbj = Mass of organics or benzene in the vent stream exiting the control device during run j, kg (lb).

T = Total time of all runs, hr.

n = Number of runs.

(4) The organic reduction efficiency or the benzene reduction efficiency for the control device shall be calculated as follows:

$$R = \frac{E_a - E_b}{E_a} \times 100$$

where:

R = Total organic reduction of efficiency or benzene reduction efficiency for the control device, percent.

Eb = Mass flow rate of organics or benzene entering the control device, kg/hr (lb/hr).

Ea = Mass flow rate of organic or benzene emitted from the control device, kg/hr (lb/hr).

(j) An owner or operator shall determine the benzene quantity for the purposes of the calculation required by § 61.342 (c)(3)(ii)(B) according to the provisions of paragraph (a) of this section, except that the procedures in paragraph (a) of this section shall also apply to wastes with a water content of 10 percent or less.

(k) An owner or operator shall determine the benzene quantity for the purposes of the calculation required by § 61.342(e)(2) by the following procedure:

(1) For each waste stream that is not controlled for air emissions in accordance with § 61.343. 61.344, 61.345, 61.346, 61.347, or 61.348(a), as applicable to the waste management unit that manages the waste, the benzene quantity shall be determined as specified in paragraph (a) of this section, except that paragraph (b)(4) of this section shall not apply, i.e., the waste quantity for process unit turnaround waste is not annualized but shall be included in the determination of benzene quantity for the year in which the waste is generated for the purposes of the calculation required by § 61.342(e)(2).

(2) For each waste stream that is controlled for air emissions in accordance with § 61.343. 61.344, 61.345, 61.346, 61.347, or 61.348(a), as applicable to the waste management unit that manages the waste, the determination of annual waste quantity and flow-weighted annual average benzene concentration shall be made at the first applicable location as described in paragraphs (k)(2)(i), (k)(2)(ii), and (k)(2)(iii) of this section and prior to any reduction of benzene concentration through volatilization of the benzene, using the methods given in (k)(2)(iv) and (k)(2)(v) of this section.

(i) Where the waste stream enters the first waste management unit not complying with § 61.343, 61.344, 61.345, 61.346, 61.347, and 61.348(a) that are applicable to the waste management unit,

(ii) For each waste stream that is managed or treated only in compliance with § 61.343 through 61.348(a) up to the point of final direct discharge from the facility, the determination of benzene quantity shall be prior to any reduction of benzene concentration through volatilization of the benzene, or

(iii) For wastes managed in units controlled for air emissions in accordance with § 61.343, 61.344, 61.345, 61.346, 61.347, and 61.348(a), and then transferred offsite, facilities shall use the first applicable offsite location as described in paragraphs (k)(2)(i) and (k)(2)(ii) of this section if they have documentation from the offsite facility of the benzene quantity at this location. Facilities without this documentation for offsite wastes shall use the benzene quantity determined at the point where the transferred waste leaves the facility.

(iv) Annual waste quantity shall be determined using the procedures in paragraphs (b)(5), (6), or (7) of this section, and

(v) The flow-weighted annual average benzene concentration shall be determined using the procedures in paragraphs (c)(2) or (3) of this section.

(3) The benzene quantity in a waste stream that is generated less than one time per year, including process unit turnaround waste, shall be included in the determination of benzene quantity as determined in paragraph (k)(6) of this section for the year in which the waste is generated. The benzene quantity in this waste stream shall not be annualized or averaged over the time interval between the activities that resulted in generation of the waste for purposes of determining benzene quantity as determined in paragraph (k)(6) of this section.

(4) The benzene in waste entering an enhanced biodegradation unit, as defined in § 61.348(b)(2)(ii)(B), shall not be included in the determination of benzene quantity, determined in paragraph (k)(6) of this section, if the following conditions are met:

(i) The benzene concentration for each waste stream entering the enhanced biodegradation unit is less than 10 ppmw on a flow-weighted annual average basis, and

(ii) All prior waste management units managing the waste comply with § 61.343, 61.344, 61.345, 61.346, 61.347 and 61.348(a).

(5) The benzene quantity for each waste stream in paragraph (k)(2) of this section shall be determined by multiplying the annual waste quantity of each waste stream times its flow-weighted annual average benzene concentration.

(6) The total benzene quantity for the purposes of the calculation required by § 61.342(e)(2) shall be determined by adding together the benzene quantities determined in paragraphs (k)(1) and (k)(5) of this section for each applicable waste stream.

(7) If the benzene quantity determined in paragraph (6) of this section exceeds 6.0 Mg/yr (6.6 ton/yr) only because of multiple counting of the benzene quantity for a waste stream, the owner or operator may use the following procedures for the purposes of the calculation required by § 61.342(e)(2):

(i) Determine which waste management units are involved in the multiple counting of benzene;

(ii) Determine the quantity of benzene that is emitted, recovered, or removed from the affected units identified in paragraph (k)(7)(i) of this section, or destroyed in the units if applicable, using either direct measurements or the best available estimation techniques developed or approved by the Administrator.

(iii) Adjust the benzene quantity to eliminate the multiple counting of benzene based on the results from paragraph (k)(7)(ii) of this section and determine the total benzene quantity for the purposes of the calculation required by § 61.342(e)(2).

(iv) Submit in the annual report required under § 61.357(a) a description of the methods used and the resulting calculations for the alternative procedure under paragraph (k)(7) of this section, the benzene quantity determination from paragraph (k)(6) of this section, and the adjusted benzene quantity determination from paragraph (k)(7)(iii) of this section.

§ 61.356 Record keeping requirements.

(a) Each owner or operator of a facility subject to the provisions of this subpart shall comply with the record keeping requirements of this section. Each record shall be maintained in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified.

(b) Each owner or operator shall maintain records that identify each waste stream at the facility subject to this subpart, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with this subpart. In addition the owner or operator shall maintain the following records:

(1) For each waste stream not controlled for benzene emissions in accordance with this subpart, the records shall include all test results, measurements, calculations, and other documentation used to determine the following information for the waste stream: waste stream identification, water content, whether or not the waste stream is a process wastewater stream, annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity.

(2) For each waste stream exempt from § 61.342(c)(1) in accordance with § 61.342(c)(3), the records shall include:

(i) All measurements, calculations, and other documentation used to determine that the continuous flow of process wastewater is less than 0.02 liters (0.005 gallons) per minute or the annual waste quantity of process wastewater is less than 10 Mg/yr (11 ton/yr) in accordance with § 61.342(c)(3)(i), or

(ii) All measurements, calculations, and other documentation used to determine that the sum of the total annual benzene quantity in all exempt waste streams does not exceed 2.0 Mg/yr (2.2 ton/yr) in accordance with § 61.342(c)(3)(ii).

(3) For each facility where process wastewater streams are controlled for benzene emissions in accordance with § 61.342(d) of this subpart, the records shall include for each treated process wastewater stream all measurements, calculations, and other documentation used to determine the annual benzene quantity in the process wastewater stream exiting the treatment process.

(4) For each facility where waste streams are controlled for benzene emissions in accordance with § 61.342(e), the records shall include for each waste stream all measurements, including the locations of the measurements, calculations, and other documentation used to determine that the total benzene quantity does not exceed 6.0 Mg/yr (6.6 ton/yr).

(5) For each facility where the annual waste quantity for process unit turnaround waste is determined in accordance with § 61.355(b)(5), the records shall include all test results, measurements, calculations, and other documentation used to determine the following information: identification of each process unit at the facility that undergoes turnarounds, the date of the most recent turnaround for each process unit, identification of each process unit turnaround waste, the water content of each process unit turnaround waste, the annual waste quantity determined in accordance with § 61.355(b)(5), the range of benzene concentrations in the waste, the annual average flow-weighted benzene concentration of the waste, and the annual benzene quantity calculated in accordance with § 61.355(a)(1)(iii) of this section.

(6) For each facility where wastewater streams are controlled for benzene emissions in accordance with § 61.348(b)(2), the records shall include all measurements, calculations, and other documentation used to determine the annual benzene content of the waste streams and the total annual benzene quantity contained in all waste streams managed or treated in exempt waste management units.

(c) An owner or operator transferring waste off-site to another facility for treatment in accordance with § 61.342(f) shall maintain documentation for each offsite waste shipment that includes the following information: Date waste is shipped offsite, quantity of waste shipped offsite, name and address of the facility receiving the waste, and a copy of the notice sent with the waste shipment.

(d) An owner or operator using control equipment in accordance with § 61.343 through 61.347 shall maintain engineering design documentation for all control equipment that is installed on the waste management unit. The documentation shall be retained for the life of the control equipment. If a control device is used, then the owner or operator shall maintain the control device records required by paragraph (f) of this section.

(e) An owner or operator using a treatment process or wastewater treatment system unit in accordance with § 61.348 of this subpart shall maintain the following records. The documentation shall be retained for the life of the unit.

(1) A statement signed and dated by the owner or operator certifying that the unit is designed to operate at the documented performance level when the waste stream entering the unit is at the highest waste stream flow rate and benzene content expected to occur.

(2) If engineering calculations are used to determine treatment process or wastewater treatment system unit performance, then the owner or operator shall maintain the complete design analysis for the unit.

The design analysis shall include for example the following information: Design specifications, drawings, schematics, piping and instrumentation diagrams, and other documentation necessary to demonstrate the unit performance.

(3) If performance tests are used to determine treatment process or wastewater treatment system unit performance, then the owner or operator shall maintain all test information necessary to demonstrate the unit performance.

(i) A description of the unit including the following information: type of treatment process; manufacturer name and model number; and for each waste stream entering and exiting the unit, the waste stream type (e.g., process wastewater, sludge, slurry, etc.), and the design flow rate and benzene content.

(ii) Documentation describing the test protocol and the means by which sampling variability and analytical variability were accounted for in the determination of the unit performance. The description of the test protocol shall include the following information: sampling locations, sampling method, sampling frequency, and analytical procedures used for sample analysis.

(iii) Records of unit operating conditions during each test run including all key process parameters.

(iv) All test results.

(4) If a control device is used, then the owner or operator shall maintain the control device records required by paragraph (f) of this section.

(f) An owner or operator using a closed-vent system and control device in accordance with § 61.349 of this subpart shall maintain the following records. The documentation shall be retained for the life of the control device.

(1) A statement signed and dated by the owner or operator certifying that the closed-vent system and control device is designed to operate at the documented performance level when the waste management unit vented to the control device is or would be operating at the highest load or capacity expected to occur.

(2) If engineering calculations are used to determine control device performance in accordance with § 61.349(c), then a design analysis for the control device that includes for example:

(i) Specifications, drawings, schematics, and piping and instrumentation diagrams prepared by the owner or operator, or the control device manufacturer or vendor that describe the control device design based on acceptable engineering texts. The design analysis shall address the following vent stream characteristics and control device operating parameters:

(A) For a thermal vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

(B) For a catalytic vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.

(C) For a boiler or process heater, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average flame zone temperatures, combustion zone residence time, and description of method and location where the vent stream is introduced into the flame zone.

(D) For a flare, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also consider the requirements specified in 40 CFR 60.18.

(E) For a condenser, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic compound concentration level or the design outlet benzene concentration level, design average temperature of the condenser exhaust vent stream, and the design average temperatures of the coolant fluid at the condenser inlet and outlet.

(F) For a carbon adsorption system that regenerates the carbon bed directly on-site in the control device such as a fixed-bed adsorber, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of carbon.

(G) For a carbon adsorption system that does not regenerate the carbon bed directly on-site in the control device, such as a carbon canister, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

(H) For a control device subject to the requirements of § 61.349(a)(2)(iv), the design analysis shall consider the vent stream composition, constituent concentration, and flow rate. The design analysis shall also include all of the information submitted under § 61.349 (a)(2)(iv).

(ii) [Reserved]

(3) If performance tests are used to determine control device performance in accordance with § 61.349(c) of this subpart:

(i) A description of how it is determined that the test is conducted when the waste management unit or treatment process is operating at the highest load or capacity level. This description shall include the estimated or design flow rate and organic content of each vent stream and definition of the acceptable operating ranges of key process and control parameters during the test program.

(ii) A description of the control device including the type of control device, control device manufacturer's name and model number, control device dimensions, capacity, and construction materials.

(iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(iv) All test results.

(g) An owner or operator shall maintain a record for each visual inspection required by § 61.343 through 61.347 of this subpart that identifies a problem (such as a broken seal, gap or other problem) which could result in benzene emissions. The record shall include the date of the inspection, waste management unit and control equipment location where the problem is identified, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed.

(h) An owner or operator shall maintain a record for each test of no detectable emissions required by § 61.343 through 61.347 and § 61.349 of this subpart. The record shall include the following information: date the test is performed, background level measured during test, and maximum concentration indicated by the instrument reading measured for each potential leak interface. If detectable emissions are measured at a leak interface, then the record shall also include the waste management unit, control equipment, and leak interface location where detectable emissions were measured, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed.

(i) For each treatment process and wastewater treatment system unit operated to comply with § 61.348, the owner or operator shall maintain documentation that includes the following information regarding the unit operation:

(1) Dates of startup and shutdown of the unit.

(2) If measurements of waste stream benzene concentration are performed in accordance with § 61.354(a)(1) of this subpart, the owner or operator shall maintain records that include date each test is performed and all test results.

(3) If a process parameter is continuously monitored in accordance with § 61.354(a)(2) of this subpart, the owner or operator shall maintain records that include a description of the operating parameter (or parameters) to be monitored to ensure that the unit will be operated in conformance with these standards and the unit's design specifications, and an explanation of the criteria used for selection of that parameter (or parameters). This documentation shall be kept for the life of the unit.

(4) If measurements of waste stream benzene concentration are performed in accordance with § 61.354(b), the owner or operator shall maintain records that include the date each test is performed and all test results.

(5) Periods when the unit is not operated as designed.

(j) For each control device, the owner or operator shall maintain documentation that includes the following information regarding the control device operation:

(1) Dates of startup and shutdown of the closed-vent system and control device.

(2) A description of the operating parameter (or parameters) to be monitored to ensure that the control device will be operated in conformance with these standards and the control device's design

specifications and an explanation of the criteria used for selection of that parameter (or parameters). This documentation shall be kept for the life of the control device.

(3) Periods when the closed-vent system and control device are not operated as designed including all periods and the duration when:

(i) Any valve car-seal or closure mechanism required under § 61.349(a)(1)(ii) is broken or the by-pass line valve position has changed.

(ii) The flow monitoring devices required under § 61.349(a)(1)(ii) indicate that vapors are not routed to the control device as required.

(4) If a thermal vapor incinerator is used, then the owner or operator shall maintain continuous records of the temperature of the gas stream in the combustion zone of the incinerator and records of all 3-hour periods of operation during which the average temperature of the gas stream in the combustion zone is more than 28 °C (50 °F) below the design combustion zone temperature.

(5) If a catalytic vapor incinerator is used, then the owner or operator shall maintain continuous records of the temperature of the gas stream both upstream and downstream of the catalyst bed of the incinerator, records of all 3-hour periods of operation during which the average temperature measured before the catalyst bed is more than 28 °C (50 °F) below the design gas stream temperature, and records of all 3-hour periods of operation during which the average temperature difference across the catalyst bed is less than 80 percent of the design temperature difference.

(6) If a boiler or process heater is used, then the owner or operator shall maintain records of each occurrence when there is a change in the location at which the vent stream is introduced into the flame zone as required by § 61.349(a)(2)(i)(C). For a boiler or process heater having a design heat input capacity less than 44 MW (150 × 10^6 BTU/hr), the owner or operator shall maintain continuous records of the temperature of the gas stream in the combustion zone of the boiler or process heater and records of all 3-hour periods of operation during which the average temperature of the gas stream in the combustion zone is more than 28 °C (50 °F) below the design combustion zone temperature. For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW (150 × 10^6 BTU/hr), the owner or operator shall maintain continuous records of the parameter(s) monitored in accordance with the requirements of § 61.354(c)(5).

(7) If a flare is used, then the owner or operator shall maintain continuous records of the flare pilot flame monitoring and records of all periods during which the pilot flame is absent.

(8) If a condenser is used, then the owner or operator shall maintain records from the monitoring device of the parameters selected to be monitored in accordance with § 61.354(c)(6). If concentration of organics or concentration of benzene in the control device outlet gas stream is monitored, then the owner or operator shall record all 3-hour periods of operation during which the concentration of organics or the concentration of benzene in the exhaust stream is more than 20 percent greater than the design value. If the temperature of the condenser exhaust stream and coolant fluid is monitored, then the owner or operator shall record all 3-hour periods of operation during which the temperature of the condenser exhaust vent stream is more than 6 °C (11 °F) above the design average exhaust vent stream temperature, or the temperature of the coolant fluid exiting the condenser is more than 6 °C (11 °F) above the design average coolant fluid temperature at the condenser outlet.

(9) If a carbon adsorber is used, then the owner or operator shall maintain records from the monitoring device of the concentration of organics or the concentration of benzene in the control device outlet gas stream. If the concentration of organics or the concentration of benzene in the control device outlet gas stream is monitored, then the owner or operator shall record all 3-hour periods of operation during which the concentration of organics or the concentration of benzene in the exhaust stream is more than 20 percent greater than the design value. If the carbon bed regeneration interval is monitored, then the owner or operator shall record each occurrence when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time.

(10) If a carbon adsorber that is not regenerated directly on site in the control device is used, then the owner or operator shall maintain records of dates and times when the control device is monitored, when breakthrough is measured, and shall record the date and time then the existing carbon in the control device is replaced with fresh carbon.

(11) If an alternative operational or process parameter is monitored for a control device, as allowed in § 61.354(e) of this subpart, then the owner or operator shall maintain records of the continuously monitored parameter, including periods when the device is not operated as designed.

(12) If a control device subject to the requirements of § 61.349(a)(2)(iv) is used, then the owner or operator shall maintain records of the parameters that are monitored and each occurrence when the parameters monitored are outside the range of values specified in § 61.349(a)(2)(iv)(C), or other records as specified by the Administrator.

(k) An owner or operator who elects to install and operate the control equipment in § 61.351 of this subpart shall comply with the record keeping requirements in 40 CFR 60.115b.

(l) An owner or operator who elects to install and operate the control equipment in § 61.352 of this subpart shall maintain records of the following:

(1) The date, location, and corrective action for each visual inspection required by 40 CFR 60.693-2(a)(5), during which a broken seal, gap, or other problem is identified that could result in benzene emissions.

(2) Results of the seal gap measurements required by 40 CFR 60.693-2(a).

(m) If a system is used for emission control that is maintained at a pressure less than atmospheric pressure with openings to provide dilution air, then the owner or operator shall maintain records of the monitoring device and records of all periods during which the pressure in the unit is operated at a pressure that is equal to or greater than atmospheric pressure.

(n) Each owner or operator using a total enclosure to comply with control requirements for tanks in § 61.343 or the control requirements for containers in §§ 61.345 must keep the records required in paragraphs (n)(1) and (2) of this section. Owners or operators may use records as required in 40 CFR 264.1089(b)(2)(iv) or 40 CFR 265.1090(b)(2)(iv) for a tank or as required in 40 CFR 264.1089(d)(1) or 40 CFR 265.1090(d)(1) for a container to meet the record keeping requirement in paragraph (n)(1) of this section. The owner or operator must make the records of each verification of a total enclosure available for inspection upon request.

(1) Records of the most recent set of calculations and measurements performed to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T -- Criteria for and Verification of a Permanent or Temporary Total Enclosure" in 40 CFR 52.741, appendix B;

(2) Records required for a closed-vent system and control device according to the requirements in paragraphs (d) (f), and (j) of this section.

§ 61.357 Reporting requirements.

(a) Each owner or operator of a chemical plant, petroleum refinery, coke by-product recovery plant, and any facility managing wastes from these industries shall submit to the Administrator within 90 days after January 7, 1993, or by the initial startup for a new source with an initial startup after the effective date, a report that summarizes the regulatory status of each waste stream subject to §§ 61.342 and is determined by the procedures specified in § 61.355(c) to contain benzene. Each owner or operator subject to this subpart who has no benzene onsite in wastes, products, by-products, or intermediates shall submit an initial report that is a statement to this effect. For all other owners or operators subject to this subpart, the report shall include the following information:

(1) Total annual benzene quantity from facility waste determined in accordance with § 61.355(a) of this subpart.

(2) A table identifying each waste stream and whether or not the waste stream will be controlled for benzene emissions in accordance with the requirements of this subpart.

(3) For each waste stream identified as not being controlled for benzene emissions in accordance with the requirements of this subpart the following information shall be added to the table:

(i) Whether or not the water content of the waste stream is greater than 10 percent;

(ii) Whether or not the waste stream is a process wastewater stream, product tank drawdown, or landfill leachate;

(iii) Annual waste quantity for the waste stream;

(iv) Range of benzene concentrations for the waste stream;

(v) Annual average flow-weighted benzene concentration for the waste stream; and

(vi) Annual benzene quantity for the waste stream.

(4) The information required in paragraphs (a) (1), (2), and (3) of this section should represent the waste stream characteristics based on current configuration and operating conditions. An owner or operator only needs to list in the report those waste streams that contact materials containing benzene. The report does not need to include a description of the controls to be installed to comply with the standard or other information required in § 61.10(a).

(b) If the total annual benzene quantity from facility waste is less than 1 Mg/yr (1.1 ton/yr), then the owner or operator shall submit to the Administrator a report that updates the information listed in paragraphs (a)(1) through (a)(3) of this section whenever there is a change in the process generating the

waste stream that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr (1.1 ton/yr) or more.

(c) If the total annual benzene quantity from facility waste is less than 10 Mg/yr (11 ton/yr) but is equal to or greater than 1 Mg/yr (1.1 ton/yr), then the owner or operator shall submit to the Administrator a report that updates the information listed in paragraphs (a)(1) through (a)(3) of this section. The report shall be submitted annually and whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr (11 ton/yr) or more. If the information in the annual report required by paragraphs (a)(1) through (a)(3) of this section is not changed in the following year, the owner or operator may submit a statement to that effect.

(d) If the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr (11 ton/yr), then the owner or operator shall submit to the Administrator the following reports:

(1) Within 90 days after January 7, 1993, unless a waiver of compliance under § 61.11 of this part is granted, or by the date of initial startup for a new source with an initial startup after the effective date, a certification that the equipment necessary to comply with these standards has been installed and that the required initial inspections or tests have been carried out in accordance with this subpart. If a waiver of compliance is granted under § 61.11, the certification of equipment necessary to comply with these standards shall be submitted by the date the waiver of compliance expires.

(2) Beginning on the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of this section, the owner or operator shall submit annually to the Administrator a report that updates the information listed in paragraphs (a)(1) through (a)(3) of this section. If the information in the annual report required by paragraphs (a)(1) through (a)(3) of this section is not changed in the following year, the owner or operator may submit a statement to that effect.

(3) If an owner or operator elects to comply with the requirements of § 61.342(c)(3)(ii), then the report required by paragraph (d)(2) of this section shall include a table identifying each waste stream chosen for exemption and the total annual benzene quantity in these exempted streams.

(4) If an owner or operator elects to comply with the alternative requirements of § 61.342(d) of this subpart, then he shall include in the report required by paragraph (d)(2) of this section a table presenting the following information for each process wastewater stream:

(i) Whether or not the process wastewater stream is being controlled for benzene emissions in accordance with the requirements of this subpart;

(ii) For each process wastewater stream identified as not being controlled for benzene emissions in accordance with the requirements of this subpart, the table shall report the following information for the process wastewater stream as determined at the point of waste generation: annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity;

(iii) For each process wastewater stream identified as being controlled for benzene emissions in accordance with the requirements of this subpart, the table shall report the following information for the process wastewater stream as determined at the exit to the treatment process: Annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity.

(5) If an owner or operator elects to comply with the alternative requirements of § 61.342(e), then the report required by paragraph (d)(2) of this section shall include a table presenting the following information for each waste stream:

(i) For each waste stream identified as not being controlled for benzene emissions in accordance with the requirements of this subpart; the table shall report the following information for the waste stream as determined at the point of waste generation: annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity;

(ii) For each waste stream identified as being controlled for benzene emissions in accordance with the requirements of this subpart; the table shall report the following information for the waste stream as determined at the applicable location described in § 61.355(k)(2): Annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity.

(6) Beginning 3 months after the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of this section, the owner or operator shall submit quarterly to the Administrator a certification that all of the required inspections have been carried out in accordance with the requirements of this subpart.

(7) Beginning 3 months after the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of this section, the owner or operator shall submit a report quarterly to the Administrator that includes:

(i) If a treatment process or wastewater treatment system unit is monitored in accordance with § 61.354(a)(1) of this subpart, then each period of operation during which the concentration of benzene in the monitored waste stream exiting the unit is equal to or greater than 10 ppmw.

(ii) If a treatment process or wastewater treatment system unit is monitored in accordance with § 61.354(a)(2) of this subpart, then each 3-hour period of operation during which the average value of the monitored parameter is outside the range of acceptable values or during which the unit is not operating as designed.

(iii) If a treatment process or wastewater treatment system unit is monitored in accordance with § 61.354(b), then each period of operation during which the flow-weighted annual average concentration of benzene in the monitored waste stream entering the unit is equal to or greater than 10 ppmw and/or the total annual benzene quantity is equal to or greater than 1.0 mg/yr.

(iv) For a control device monitored in accordance with § 61.354(c) of this subpart, each period of operation monitored during which any of the following conditions occur, as applicable to the control device:

(A) Each 3-hour period of operation during which the average temperature of the gas stream in the combustion zone of a thermal vapor incinerator, as measured by the temperature monitoring device, is more than 28 °C (50 °F) below the design combustion zone temperature.

(B) Each 3-hour period of operation during which the average temperature of the gas stream immediately before the catalyst bed of a catalytic vapor incinerator, as measured by the temperature monitoring device, is more than 28 °C (50 °F) below the design gas stream temperature, and any 3-hour period

during which the average temperature difference across the catalyst bed (i.e., the difference between the temperatures of the gas stream immediately before and after the catalyst bed), as measured by the temperature monitoring device, is less than 80 percent of the design temperature difference.

(C) Each 3-hour period of operation during which the average temperature of the gas stream in the combustion zone of a boiler or process heater having a design heat input capacity less than 44 MW (150 × 10^6 BTU/hr), as measured by the temperature monitoring device, is more than 28 °C (50 °F) below the design combustion zone temperature.

(D) Each 3-hour period of operation during which the average concentration of organics or the average concentration of benzene in the exhaust gases from a carbon adsorber, condenser, or other vapor recovery system is more than 20 percent greater than the design concentration level of organics or benzene in the exhaust gas.

(E) Each 3-hour period of operation during which the temperature of the condenser exhaust vent stream is more than 6 °C (11 °F) above the design average exhaust vent stream temperature, or the temperature of the coolant fluid exiting the condenser is more than 6 °C (11 °F) above the design average coolant fluid temperature at the condenser outlet.

(F) Each period in which the pilot flame of a flare is absent.

(G) Each occurrence when there is a change in the location at which the vent stream is introduced into the flame zone of a boiler or process heater as required by § 61.349(a)(2)(i)(C) of this subpart.

(H) Each occurrence when the carbon in a carbon adsorber system that is regenerated directly on site in the control device is not regenerated at the predetermined carbon bed regeneration time.

(I) Each occurrence when the carbon in a carbon adsorber system that is not regenerated directly on site in the control device is not replaced at the predetermined interval specified in § 61.354(c) of this subpart.

(J) Each 3-hour period of operation during which the parameters monitored are outside the range of values specified in § 61.349(a)(2)(iv)(C), or any other periods specified by the Administrator for a control device subject to the requirements of § 61.349(a)(2)(iv).

(v) For a cover and closed-vent system monitored in accordance with § 61.354(g), the owner or operator shall submit a report quarterly to the Administrator that identifies any period in which the pressure in the waste management unit is equal to or greater than atmospheric pressure.

(8) Beginning one year after the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of this section, the owner or operator shall submit annually to the Administrator a report that summarizes all inspections required by § 61.342 through 61.354 during which detectable emissions are measured or a problem (such as a broken seal, gap or other problem) that could result in benzene emissions is identified, including information about the repairs or corrective action taken.

(e) An owner or operator electing to comply with the provisions of § 61.351 or 61.352 of this subpart shall notify the Administrator of the alternative standard selected in the report required under § 61.07 or § 61.10 of this part.

(f) An owner or operator who elects to install and operate the control equipment in § 61.351 of this subpart shall comply with the reporting requirements in 40 CFR 60.115b.

(g) An owner or operator who elects to install and operate the control equipment in § 61.352 of this subpart shall submit initial and quarterly reports that identify all seal gap measurements, as required in 40 CFR 60.693-2(a), that are outside the prescribed limits.

§ 61.358 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 112(d) of the Clean Air Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Alternative means of emission limitation under § 61.353 of this subpart will not be delegated to States.

10. 40 CFR Part 63, Subpart A - General Provisions

[The following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart A: B001, B002, B003, B004, B005, B006, B007, B008, B009, B016, B022, B024, B026, B027, B028, P002, P006, P007, P010, P011, P014, P015, P027, P030, P036, P040, P041, T009, T010, T011, T017, T018, T019, T020, T021, T022, T023, T024, T025, T026, T027, T028, T029, T030, T031, T032, T033, T034, T035, T036, T037, T038, T039, T040, T041, T042, T043, T044, T045, T046, T047, T048, T049, T053, T054, T055, T057, T058, T059, T060, T061, T062, T064, T065, T066, T067, T068, T070, T071, T072, T073, T074, T075, T076, T078, T080, T081, T083, T084, T085, T086, T087, T088, T090. T091, T092, T093, T097, T100, T112, T121, T123, T161, T164, T177, T178, T182, T190, T191, T192, T195, T196, T197, T198, T200, T201, T202, T203, T204, T205, T206, T207, T208, T209, T210, T211, T212, T213, T214, T217, T218, T219, T222 and T223.]

§ **63.1 Applicability.**

(a) *General.* (1) Terms used throughout this part are defined in § 63.2 or in the Clean Air Act (Act) as amended in 1990, except that individual subparts of this part may include specific definitions in addition to or that supersede definitions in § 63.2.

(2) This part contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. This section explains the applicability of such standards to sources affected by them. The standards in this part are independent of NESHAP contained in 40 CFR part 61. The NESHAP in part 61 promulgated by signature of the Administrator before November 15, 1990 (i.e., the date of enactment of the Clean Air Act Amendments of 1990) remain in effect until they are amended, if appropriate, and added to this part.

(3) No emission standard or other requirement established under this part shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other

applicable requirement established by the Administrator pursuant to other authority of the Act (section 111, part C or D or any other authority of this Act), or a standard issued under State authority. The Administrator may specify in a specific standard under this part that facilities subject to other provisions under the Act need only comply with the provisions of that standard.

(4)(i) Each relevant standard in this part 63 must identify explicitly whether each provision in this subpart A is or is not included in such relevant standard.

(ii) If a relevant part 63 standard incorporates the requirements of 40 CFR part 60, part 61 or other part 63 standards, the relevant part 63 standard must identify explicitly the applicability of each corresponding part 60, part 61, or other part 63 subpart A (General) provision.

(iii) The General Provisions in this subpart A do not apply to regulations developed pursuant to section 112(r) of the amended Act, unless otherwise specified in those regulations.

(5) [Reserved]

(6) To obtain the most current list of categories of sources to be regulated under section 112 of the Act, or to obtain the most recent regulation promulgation schedule established pursuant to section 112(e) of the Act, contact the Office of the Director, Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA (MD-13), Research Triangle Park, North Carolina 27711.

(7)-(9) [Reserved]

(10) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.

(11) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, test plan, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

(12) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in § 63.9(i).

(b) *Initial applicability determination for this part.* (1) The provisions of this part apply to the owner or operator of any stationary source that --

(i) Emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and

(ii) Is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.

(2) [Reserved]

(3) An owner or operator of a stationary source who is in the relevant source category and who determines that the source is not subject to a relevant standard or other requirement established under this part must keep a record as specified in § 63.10(b)(3).

(c) *Applicability of this part after a relevant standard has been set under this part.* (1) If a relevant standard has been established under this part, the owner or operator of an affected source must comply with the provisions of that standard and of this subpart as provided in paragraph (a)(4) of this section.

(2) Except as provided in § 63.10(b)(3), if a relevant standard has been established under this part, the owner or operator of an affected source may be required to obtain a title V permit from a permitting authority in the State in which the source is located. Emission standards promulgated in this part for area sources pursuant to section 112(c)(3) of the Act will specify whether --

(i) States will have the option to exclude area sources affected by that standard from the requirement to obtain a title V permit (i.e., the standard will exempt the category of area sources altogether from the permitting requirement);

(ii) States will have the option to defer permitting of area sources in that category until the Administrator takes rulemaking action to determine applicability of the permitting requirements; or

(iii) If a standard fails to specify what the permitting requirements will be for area sources affected by such a standard, then area sources that are subject to the standard will be subject to the requirement to obtain a title V permit without any deferral.

(3)-(4) [Reserved]

(5) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source also shall be subject to the notification requirements of this subpart.

(d) [Reserved]

(e) If the Administrator promulgates an emission standard under section 112(d) or (h) of the Act that is applicable to a source subject to an emission limitation by permit established under section 112(j) of the Act, and the requirements under the section 112(j) emission limitation are substantially as effective as the promulgated emission standard, the owner or operator may request the permitting authority to revise the source's title V permit to reflect that the emission limitation in the permit satisfies the requirements of the promulgated emission standard. The process by which the permitting authority determines whether the section 112(j) emission limitation is substantially as effective as the promulgated emission standard must include, consistent with part 70 or 71 of this chapter, the opportunity for full public, EPA, and affected State review (including the opportunity for EPA's objection) prior to the permit revision

being finalized. A negative determination by the permitting authority constitutes final action for purposes of review and appeal under the applicable title V operating permit program.

§ 63.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 *et seq*., as amended by Pub. L. 101-549, 104 Stat. 2399).

Actual emissions is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

Affected source, for the purposes of this part, means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112 of the Act. Each relevant standard will define the "affected source," as defined in this paragraph unless a different definition is warranted based on a published justification as to why this definition would result in significant administrative, practical, or implementation problems and why the different definition would resolve those problems. The term "affected source," as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Affected source may be defined differently for part 63 than affected facility and stationary source in parts 60 and 61, respectively. This definition of "affected source," and the procedures for adopting an alternative definition of "affected source," shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002.

Alternative emission limitation means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

Alternative emission standard means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

Alternative test method means any method of sampling and analyzing for an air pollutant that is not a test method in this chapter and that has been demonstrated to the Administrator's satisfaction, using Method 301 in Appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

Commenced means, with respect to construction or reconstruction of an affected source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

Compliance date means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

Compliance schedule means: (1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or

(2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or

(3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

Construction means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Continuous opacity monitoring system (COMS) means a continuous monitoring system that measures the opacity of emissions.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Effective date means:

(1) With regard to an emission standard established under this part, the date of promulgation in the Federal Register of such standard; or

(2) With regard to an alternative emission limitation or equivalent emission limitation determined by the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part.

Emission standard means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

Emissions averaging is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard, and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

EPA means the United States Environmental Protection Agency.

Equivalent emission limitation means any maximum achievable control technology emission limitation or requirements which are applicable to a major source of hazardous air pollutants and are adopted by the Administrator (or a State with an approved permit program) on a case-by-case basis, pursuant to section 112(g) or (j) of the Act.

Excess emissions and continuous monitoring system performance report is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

Existing source means any affected source that is not a new source.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

(1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;

(2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;

(3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;

(4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);

(5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;

(6) Limitations and conditions that are part of an operating permit where the permit and the permitting program pursuant to which it was issued meet all of the following criteria:

(i) The operating permit program has been submitted to and approved by EPA into a State implementation plan (SIP) under section 110 of the CAA;

(ii) The SIP imposes a legal obligation that operating permit holders adhere to the terms and limitations of such permits and provides that permits which do not conform to the operating permit program requirements and the requirements of EPA's underlying regulations may be deemed not "federally enforceable" by EPA;

(iii) The operating permit program requires that all emission limitations, controls, and other requirements imposed by such permits will be at least as stringent as any other applicable limitations and requirements contained in the SIP or enforceable under the SIP, and that the program may not issue permits that waive, or make less stringent, any limitations or requirements contained in or issued pursuant to the SIP, or that are otherwise "federally enforceable";

(iv) The limitations, controls, and requirements in the permit in question are permanent, quantifiable, and otherwise enforceable as a practical matter; and

(v) The permit in question was issued only after adequate and timely notice and opportunity for comment for EPA and the public.

(7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and

(8) Individual consent agreements that the EPA has legal authority to create.

Fixed capital cost means the capital needed to provide all the depreciable components of an existing source.

Fugitive emissions means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.

Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Monitoring means the collection and use of measurement data or other information to control the operation of a process or pollution control device or to verify a work practice standard relative to assuring compliance with applicable requirements. Monitoring is composed of four elements:

(1) Indicator(s) of performance -- the parameter or parameters you measure or observe for demonstrating proper operation of the pollution control measures or compliance with the applicable emissions limitation or standard. Indicators of performance may include direct or predicted emissions measurements (including opacity), operational parametric values that correspond to process or control device (and capture system) efficiencies or emissions rates, and recorded findings of inspection of work practice activities, materials tracking, or design characteristics. Indicators may be expressed as a single maximum or minimum value, a function of process variables (for example, within a range of pressure drops), a particular operational or work practice status (for example, a damper position, completion of a waste recovery task, materials tracking), or an interdependency between two or among more than two variables.

(2) Measurement techniques -- the means by which you gather and record information of or about the indicators of performance. The components of the measurement technique include the detector type, location and installation specifications, inspection procedures, and quality assurance and quality control measures. Examples of measurement techniques include continuous emission monitoring systems, continuous opacity monitoring systems, continuous parametric monitoring systems, and manual inspections that include making records of process conditions or work practices.

(3) Monitoring frequency -- the number of times you obtain and record monitoring data over a specified time interval. Examples of monitoring frequencies include at least four points equally spaced for each hour for continuous emissions or parametric monitoring systems, at least every 10 seconds for continuous opacity monitoring systems, and at least once per operating day (or week, month, etc.) for work practice or design inspections.

(4) Averaging time -- the period over which you average and use data to verify proper operation of the pollution control approach or compliance with the emissions limitation or standard. Examples of averaging time include a 3-hour average in units of the emissions limitation, a 30-day rolling average emissions value, a daily average of a control device operational parametric range, and an instantaneous alarm.

New affected source means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory that is subject to a section 112(d) or other relevant standard for new sources. This definition of "new affected

source," and the criteria to be utilized in implementing it, shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002. Each relevant standard will define the term "new affected source," which will be the same as the "affected source" unless a different collection is warranted based on consideration of factors including:

(1) Emission reduction impacts of controlling individual sources versus groups of sources;

(2) Cost effectiveness of controlling individual equipment;

(3) Flexibility to accommodate common control strategies;

(4) Cost/benefits of emissions averaging;

(5) Incentives for pollution prevention;

(6) Feasibility and cost of controlling processes that share common equipment (e.g., product recovery devices);

(7) Feasibility and cost of monitoring; and

(8) Other relevant factors.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part establishing an emission standard applicable to such source.

One-hour period, unless otherwise defined in an applicable subpart, means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source.

Performance audit means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Permit modification means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State

regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permit revision means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permitting authority means: (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

Reconstruction, unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously nonaffected source to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and

(2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Regulation promulgation schedule means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the Federal Register.

Relevant standard means:

(1) An emission standard;

(2) An alternative emission standard;

(3) An alternative emission limitation; or

(4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the collection of equipment, activities, or both regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of this

part, as provided by § 63.1(a)(4), and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

Responsible official means one of the following:

(1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the Administrator.

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).

(4) For affected sources (as defined in this part) applying for or subject to a title V permit: "responsible official" shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

Shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose.

Six-minute period means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

Standard conditions means a temperature of 293 °K (68 °F) and a pressure of 101.3 kilopascals (29.92 in. Hg).

Startup means the setting in operation of an affected source or portion of an affected source for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement: (1) The provisions of this part and/or (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Test method means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

Working day means any day on which Federal Government offices (or State government offices for a State that has obtained delegation under section 112(l)) are open for normal business. Saturdays, Sundays, and official Federal (or where delegated, State) holidays are not working days.

§ 63.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) *System International (SI) units of measure:*

A = ampere

g = gram

Hz = hertz

J = joule

°K = degree Kelvin

kg = kilogram

l = liter

m = meter

m^3 = cubic meter

mg = milligram = 10^-3 gram

ml = milliliter = 10^-3 liter

mm = millimeter = 10^-3 meter

Mg = megagram = 10^6 gram = metric ton

MJ = megajoule

mol = mole

N = newton

ng = nanogram = 10^-9 gram

nm = nanometer = 10^-9 meter

Pa = pascal

s = second

V = volt

W = watt

ohm = ohm

Fg = microgram = 10^-6 gram

Fl = microliter = 10^-6 liter

(b) *Other units of measure:*

Btu = British thermal unit

°C = degree Celsius (centigrade)

cal = calorie

cfm = cubic feet per minute

cc = cubic centimeter

cu ft = cubic feet

d = day

dcf = dry cubic feet

dcm = dry cubic meter

dscf = dry cubic feet at standard conditions

dscm = dry cubic meter at standard conditions

eq = equivalent

°F = degree Fahrenheit

ft = feet

ft^2 = square feet

ft^3 = cubic feet

gal = gallon

gr = grain

g-eq = gram equivalent

g-mole = gram mole

hr = hour

in. = inch

in. H2O = inches of water

K = 1,000

kcal = kilocalorie

lb = pound

lpm = liter per minute

meq = milliequivalent

min = minute

MW = molecular weight

oz = ounces

ppb = parts per billion

ppbw = parts per billion by weight

ppbv = parts per billion by volume

ppm = parts per million

ppmw = parts per million by weight

ppmv = parts per million by volume

psia = pounds per square inch absolute

psig = pounds per square inch gage

°R = degree Rankine

scf = cubic feet at standard conditions

scfh = cubic feet at standard conditions per hour

scm = cubic meter at standard conditions

scmm = cubic meter at standard conditions per minute

sec = second

sq ft = square feet

std = at standard conditions

v/v = volume per volume

yd^2 = square yards

yr = year

(c) *Miscellaneous:*

act = actual

avg = average

I.D. = inside diameter

M = molar

N = normal

O.D. = outside diameter

% = percent

§ 63.4 Prohibited activities and circumvention.

(a) *Prohibited activities.* (1) No owner or operator subject to the provisions of this part must operate any affected source in violation of the requirements of this part. Affected sources subject to and in compliance with either an extension of compliance or an exemption from compliance are not in violation of the requirements of this part. An extension of compliance can be granted by the Administrator under this part; by a State with an approved permit program; or by the President under section 112(i)(4) of the Act.

(2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.

(3)-(5) [Reserved]

(b) *Circumvention.* No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to --

(1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;

(2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions; and

(c) *Fragmentation.* Fragmentation after November 15, 1990 which divides ownership of an operation, within the same facility among various owners where there is no real change in control, will not affect applicability. The owner and operator must not use fragmentation or phasing of reconstruction activities (i.e., intentionally dividing reconstruction into multiple parts for purposes of avoiding new source requirements) to avoid becoming subject to new source requirements.

§ 63.5 Preconstruction review and notification requirements.

(a) *Applicability.* (1) This section implements the preconstruction review requirements of section 112(i)(1). After the effective date of a relevant standard, promulgated pursuant to section 112(d), (f), or (h) of the Act, under this part, the preconstruction review requirements in this section apply to the owner or operator of new affected sources and reconstructed affected sources that are major-emitting as specified in this section. New and reconstructed affected sources that commence construction or reconstruction before the effective date of a relevant standard are not subject to the preconstruction review requirements specified in paragraphs (b)(3), (d), and (e) of this section.

(2) This section includes notification requirements for new affected sources and reconstructed affected sources that are not major-emitting affected sources and that are or become subject to a relevant promulgated emission standard after the effective date of a relevant standard promulgated under this part.

(b) *Requirements for existing, newly constructed, and reconstructed sources.* (1) A new affected source for which construction commences after proposal of a relevant standard is subject to relevant standards for new affected sources, including compliance dates. An affected source for which reconstruction commences after proposal of a relevant standard is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

(2) [Reserved]

(3) After the effective date of any relevant standard promulgated by the Administrator under this part, no person may, without obtaining written approval in advance from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section, do any of the following:

(i) Construct a new affected source that is major-emitting and subject to such standard;

(ii) Reconstruct an affected source that is major-emitting and subject to such standard; or

(iii) Reconstruct a major source such that the source becomes an affected source that is major-emitting and subject to the standard.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in § 63.9(b).

(5) [Reserved]

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard must be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source.

(c) [Reserved]

(d) *Application for approval of construction or reconstruction.* The provisions of this paragraph implement section 112(i)(1) of the Act.

(1) *General application requirements.* (i) An owner or operator who is subject to the requirements of paragraph (b)(3) of this section must submit to the Administrator an application for approval of the construction or reconstruction. The application must be submitted as soon as practicable before actual construction or reconstruction begins. The application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of § 63.9(b)(5). The owner or operator may submit the application for approval well in advance of the date actual construction or reconstruction begins in order to ensure a timely review by the Administrator and that the planned date to begin will not be delayed.

(ii) A separate application shall be submitted for each construction or reconstruction. Each application for approval of construction or reconstruction shall include at a minimum:

(A) The applicant's name and address;

(B) A notification of intention to construct a new major affected source or make any physical or operational change to a major affected source that may meet or has been determined to meet the criteria for a reconstruction, as defined in § 63.2 or in the relevant standard;

(C) The address (i.e., physical location) or proposed address of the source;

(D) An identification of the relevant standard that is the basis of the application;

(E) The expected date of the beginning of actual construction or reconstruction;

(F) The expected completion date of the construction or reconstruction;

(G) [Reserved]

(H) The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard, or if actual emissions data are not yet available, an estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction. However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance; and

(I) [Reserved]

(J) Other information as specified in paragraphs (d)(2) and (d)(3) of this section.

(iii) An owner or operator who submits estimates or preliminary information in place of the actual emissions data and analysis required in paragraphs (d)(1)(ii)(H) and (d)(2) of this section shall submit the actual, measured emissions data and other correct information as soon as available but no later than with the notification of compliance status required in § 63.9(h) (see § 63.9(h)(5)).

(2) *Application for approval of construction.* Each application for approval of construction must include, in addition to the information required in paragraph (d)(1)(ii) of this section, technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including an identification of each type of emission point for each type of hazardous air pollutant that is emitted (or could reasonably be anticipated to be emitted) and a description of the planned air pollution control system (equipment or method) for each emission point. The description of the equipment to be used for the control of emissions must include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions must include an estimated control efficiency (percent) for that method. Such technical information must include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations.

(3) *Application for approval of reconstruction.* Each application for approval of reconstruction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section --

(i) A brief description of the affected source and the components that are to be replaced;

(ii) A description of present and proposed emission control systems (i.e., equipment or methods). The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations;

(iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;

(iv) The estimated life of the affected source after the replacements; and

(v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.

(vi) If in the application for approval of reconstruction the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or other requirements, the owner or operator need not submit the information required in paragraphs (d)(3)(iii) through (d)(3)(v) of this section.

(4) *Additional information.* The Administrator may request additional relevant information after the submittal of an application for approval of construction or reconstruction.

(e) *Approval of construction or reconstruction.* (1)(i) If the Administrator determines that, if properly constructed, or reconstructed, and operated, a new or existing source for which an application under paragraph (d) of this section was submitted will not cause emissions in violation of the relevant standard(s) and any other federally enforceable requirements, the Administrator will approve the construction or reconstruction.

(ii) In addition, in the case of reconstruction, the Administrator's determination under this paragraph will be based on:

(A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;

(B) The estimated life of the source after the replacements compared to the life of a comparable entirely new source;

(C) The extent to which the components being replaced cause or contribute to the emissions from the source; and

(D) Any economic or technical limitations on compliance with relevant standards that are inherent in the proposed replacements.

(2)(i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of construction or reconstruction within 60 calendar days after receipt of sufficient information to evaluate an application submitted under paragraph (d) of this section. The 60-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(3) Before denying any application for approval of construction or reconstruction, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with --

(i) Notice of the information and findings on which the intended denial is based; and

(ii) Notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator to enable further action on the application.

(4) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 calendar days of presentation of additional information or arguments (if the application is complete), or within 60 calendar days after the final date specified for presentation if no presentation is made.

(5) Neither the submission of an application for approval nor the Administrator's approval of construction or reconstruction shall --

(i) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(ii) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(f) *Approval of construction or reconstruction based on prior State preconstruction review.* (1) Preconstruction review procedures that a State utilizes for other purposes may also be utilized for purposes of this section if the procedures are substantially equivalent to those specified in this section. The Administrator will approve an application for construction or reconstruction specified in paragraphs (b)(3) and (d) of this section if the owner or operator of a new affected source or reconstructed affected source, who is subject to such requirement meets the following conditions:

(i) The owner or operator of the new affected source or reconstructed affected source has undergone a preconstruction review and approval process in the State in which the source is (or would be) located and has received a federally enforceable construction permit that contains a finding that the source will meet the relevant promulgated emission standard, if the source is properly built and operated.

(ii) Provide a statement from the State or other evidence (such as State regulations) that it considered the factors specified in paragraph (e)(1) of this section.

(2) The owner or operator must submit to the Administrator the request for approval of construction or reconstruction under this paragraph (f)(2) no later than the application deadline specified in paragraph (d)(1) of this section (see also § 63.9(b)(2)). The owner or operator must include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in paragraph (e) of this section. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction under this paragraph (f)(2).

§ 63.6 Compliance with standards and maintenance requirements.

(a) *Applicability.*

(1) The requirements in this section apply to the owner or operator of affected sources for which any relevant standard has been established pursuant to section 112 of the Act and the applicability of such requirements is set out in accordance with § 63.1(a)(4) unless --

(i) The Administrator (or a State with an approved permit program) has granted an extension of compliance consistent with paragraph (i) of this section; or

(ii) The President has granted an exemption from compliance with any relevant standard in accordance with section 112(i)(4) of the Act.

(2) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air

pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source, such source shall be subject to the relevant emission standard or other requirement.

(b) *Compliance dates for new and reconstructed sources.* (1) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source for which construction or reconstruction commences after proposal of a relevant standard that has an initial startup before the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard not later than the standard's effective date.

(2) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source that has an initial startup after the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard upon startup of the source.

(3) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act but before the effective date (that is, promulgation) of such standard shall comply with the relevant emission standard not later than the date 3 years after the effective date if:

(i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; for purposes of this paragraph, a finding that controls or compliance methods are "more stringent" must include control technologies or performance criteria and compliance or compliance assurance methods that are different but are substantially equivalent to those required by the promulgated rule, as determined by the Administrator (or his or her authorized representative); and

(ii) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.

(4) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of a relevant standard established pursuant to section 112(f) shall not be required to comply with the section 112(f) emission standard until the date 10 years after the date construction or reconstruction is commenced, except that, if the section 112(f) standard is promulgated more than 10 years after construction or reconstruction is commenced, the owner or operator must comply with the standard as provided in paragraphs (b)(1) and (2) of this section.

(5) The owner or operator of a new source that is subject to the compliance requirements of paragraph (b)(3) or (4) of this section must notify the Administrator in accordance with § 63.9(d)

(6) [Reserved]

(7) When an area source becomes a major source by the addition of equipment or operations that meet the definition of new affected source in the relevant standard, the portion of the existing facility that is a new affected source must comply with all requirements of that standard applicable to new sources. The source owner or operator must comply with the relevant standard upon startup.

(c) *Compliance dates for existing sources.* (1) After the effective date of a relevant standard established under this part pursuant to section 112(d) or 112(h) of the Act, the owner or operator of an existing source shall comply with such standard by the compliance date established by the Administrator in the

applicable subpart(s) of this part. Except as otherwise provided for in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable subpart of this part exceed 3 years after the effective date of such standard.

(2) If an existing source is subject to a standard established under this part pursuant to section 112(f) of the Act, the owner or operator must comply with the standard by the date 90 days after the standard's effective date, or by the date specified in an extension granted to the source by the Administrator under paragraph (i)(4)(ii) of this section, whichever is later.

(3)-(4) [Reserved]

(5) Except as provided in paragraph (b)(7) of this section, the owner or operator of an area source that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source shall be subject to relevant standards for existing sources. Such sources must comply by the date specified in the standards for existing area sources that become major sources. If no such compliance date is specified in the standards, the source shall have a period of time to comply with the relevant emission standard that is equivalent to the compliance period specified in the relevant standard for existing sources in existence at the time the standard becomes effective.

(d) [Reserved]

(e) *Operation and maintenance requirements.*

(1)(i) At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.

(ii) Malfunctions must be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(2) [Reserved]

(3) *Startup, shutdown, and malfunction plan.* (i) The owner or operator of an affected source must develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control and monitoring equipment used to comply with the relevant standard. This plan must be developed by the owner or operator by the source's compliance date for that relevant standard. The purpose of the startup, shutdown, and malfunction plan is to --

(A) Ensure that, at all times, the owner or operator operates and maintains each affected source, including associated air pollution control and monitoring equipment, in a manner which satisfies the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

(C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(ii) During periods of startup, shutdown, and malfunction, the owner or operator of an affected source must operate and maintain such source (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (e)(3)(i) of this section.

(iii) When actions taken by the owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of record keeping that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, the owner or operator must keep records of these events as specified in § 63.10(b), including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in § 63.10(d)(5).

(iv) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then the owner or operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with § 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).

(v) The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as

provided in paragraph (e)(3)(viii) of this section, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of this part, the owner or operator must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by the Administrator. The Administrator may at any time request in writing that the owner or operator submit a copy of any startup, shutdown, and malfunction plan (or a portion thereof) which is maintained at the affected source or in the possession of the owner or operator. Upon receipt of such a request, the owner or operator must promptly submit a copy of the requested plan (or a portion thereof) to the Administrator. The Administrator must request that the owner or operator submit a particular startup, shutdown, or malfunction plan (or a portion thereof) whenever a member of the public submits a specific and reasonable request to examine or to receive a copy of that plan or portion of a plan. The owner or operator may elect to submit the required copy of any startup, shutdown, and malfunction plan to the Administrator in an electronic format. If the owner or operator claims that any portion of such a startup, shutdown, and malfunction plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission.

(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection or submitted when requested by the Administrator.

(vii) Based on the results of a determination made under paragraph (e)(1)(i) of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator must require appropriate revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

(A) Does not address a startup, shutdown, or malfunction event that has occurred;

(B) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or

(D) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in § 63.2.

(viii) The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by § 63.10(d)(5). If the startup,

shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.

(ix) The Title V permit for an affected source must require that the owner or operator adopt a startup, shutdown, and malfunction plan which conforms to the provisions of this part, and that the owner or operator operate and maintain the source in accordance with the procedures specified in the current startup, shutdown, and malfunction plan. However, any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by this part shall not be deemed to constitute permit revisions under part 70 or part 71 of this chapter. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act.

(f) *Compliance with nonopacity emission standards* -- (1) *Applicability.* The non-opacity emission standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in this part, then that emission point must still be required to comply with the non-opacity emission standards and other applicable requirements.

(2) *Methods for determining compliance.* (i) The Administrator will determine compliance with nonopacity emission standards in this part based on the results of performance tests conducted according to the procedures in § 63.7, unless otherwise specified in an applicable subpart of this part.

(ii) The Administrator will determine compliance with nonopacity emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in § 63.6(e) and applicable subparts of this part.

(iii) If an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if --

(A) The performance test was conducted within a reasonable amount of time before an initial performance test is required to be conducted under the relevant standard;

(B) The performance test was conducted under representative operating conditions for the source;

(C) The performance test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e) of this subpart; and

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c).

(iv) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by review of records, inspection of the source, and other procedures specified in applicable subparts of this part.

(v) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, as specified in paragraph (e) of this section and applicable subparts of this part.

(3) *Finding of compliance*. The Administrator will make a finding concerning an affected source's compliance with a non-opacity emission standard, as specified in paragraphs (f)(1) and (2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable), and information available to the Administrator pursuant to paragraph (e)(1)(i) of this section.

(g) *Use of an alternative nonopacity emission standard.* (1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the Federal Register a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any Federal Register notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in accordance with § 63.7 and § 63.8, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring. Any testing or monitoring conducted to request permission to use an alternative nonopacity emission standard shall be appropriately quality assured and quality controlled, as specified in § 63.7 and § 63.8.

(3) The Administrator may establish general procedures in an applicable subpart that accomplish the requirements of paragraphs (g)(1) and (g)(2) of this section.

(h) *Compliance with opacity and visible emission standards* -- (1) *Applicability*. The opacity and visible emission standards set forth in this part must apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown,

or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the opacity and visible emission standards set forth in this part, then that emission point shall still be required to comply with the opacity and visible emission standards and other applicable requirements.

(2) *Methods for determining compliance.* (i) The Administrator will determine compliance with opacity and visible emission standards in this part based on the results of the test method specified in an applicable subpart. Whenever a continuous opacity monitoring system (COMS) is required to be installed to determine compliance with numerical opacity emission standards in this part, compliance with opacity emission standards in this part shall be determined by using the results from the COMS. Whenever an opacity emission test method is not specified, compliance with opacity emission standards in this part shall be determined by conducting observations in accordance with Test Method 9 in appendix A of part 60 of this chapter or the method specified in paragraph (h)(7)(ii) of this section. Whenever a visible emission test method is not specified, compliance with visible emission standards in this part shall be determined by conducting observations in accordance with Test Method 22 in appendix A of part 60 of this chapter.

(ii) [Reserved]

(iii) If an affected source undergoes opacity or visible emission testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if --

(A) The opacity or visible emission test was conducted within a reasonable amount of time before a performance test is required to be conducted under the relevant standard;

(B) The opacity or visible emission test was conducted under representative operating conditions for the source;

(C) The opacity or visible emission test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e); and

(D) The opacity or visible emission test was appropriately quality-assured, as specified in § 63.7(c) of this section.

(3) [Reserved]

(4) *Notification of opacity or visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with § 63.9(f), if such observations are required for the source by a relevant standard.

(5) *Conduct of opacity or visible emission observations.* When a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall comply with the following:

(i) For the purpose of demonstrating initial compliance, opacity or visible emission observations shall be conducted concurrently with the initial performance test required in § 63.7 unless one of the following conditions applies:

(A) If no performance test under § 63.7 is required, opacity or visible emission observations shall be conducted within 60 days after achieving the maximum production rate at which a new or reconstructed source will be operated, but not later than 120 days after initial startup of the source, or within 120 days after the effective date of the relevant standard in the case of new sources that start up before the standard's effective date. If no performance test under § 63.7 is required, opacity or visible emission observations shall be conducted within 120 days after the compliance date for an existing or modified source; or

(B) If visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under § 63.7, or within the time period specified in paragraph (h)(5)(i)(A) of this section, the source's owner or operator shall reschedule the opacity or visible emission observations as soon after the initial performance test, or time period, as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. The rescheduled opacity or visible emission observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under § 63.7. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity or visible emission observations from being made concurrently with the initial performance test in accordance with procedures contained in Test Method 9 or Test Method 22 in appendix A of part 60 of this chapter.

(ii) For the purpose of demonstrating initial compliance, the minimum total time of opacity observations shall be 3 hours (30 6-minute averages) for the performance test or other required set of observations (e.g., for fugitive-type emission sources subject only to an opacity emission standard).

(iii) The owner or operator of an affected source to which an opacity or visible emission standard in this part applies shall conduct opacity or visible emission observations in accordance with the provisions of this section, record the results of the evaluation of emissions, and report to the Administrator the opacity or visible emission results in accordance with the provisions of § 63.10(d).

(iv) [Reserved]

(v) Opacity readings of portions of plumes that contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity emission standards.

(6) *Availability of records.* The owner or operator of an affected source shall make available, upon request by the Administrator, such records that the Administrator deems necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification.

(7) *Use of a continuous opacity monitoring system.* (i) The owner or operator of an affected source required to use a continuous opacity monitoring system (COMS) shall record the monitoring data produced during a performance test required under § 63.7 and shall furnish the Administrator a written report of the monitoring results in accordance with the provisions of § 63.10(e)(4).

(ii) Whenever an opacity emission test method has not been specified in an applicable subpart, or an owner or operator of an affected source is required to conduct Test Method 9 observations (see appendix A of part 60 of this chapter), the owner or operator may submit, for compliance purposes, COMS data results produced during any performance test required under § 63.7 in lieu of Method 9 data. If the owner or operator elects to submit COMS data for compliance with the opacity emission standard, he or

she shall notify the Administrator of that decision, in writing, simultaneously with the notification under § 63.7(b) of the date the performance test is scheduled to begin.

Once the owner or operator of an affected source has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent performance tests required under § 63.7, unless the owner or operator notifies the Administrator in writing to the contrary not later than with the notification under § 63.7(b) of the date the subsequent performance test is scheduled to begin.

(iii) For the purposes of determining compliance with the opacity emission standard during a performance test required under § 63.7 using COMS data, the COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test.

(iv) The owner or operator of an affected source using a COMS for compliance purposes is responsible for demonstrating that he/she has complied with the performance evaluation requirements of § 63.8(e), that the COMS has been properly maintained, operated, and data quality-assured, as specified in § 63.8(c) and § 63.8(d), and that the resulting data have not been altered in any way.

(v) Except as provided in paragraph (h)(7)(ii) of this section, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the affected source proves that, at the time of the alleged violation, the instrument used was properly maintained, as specified in § 63.8(c), and met Performance Specification 1 in appendix B of part 60 of this chapter, and that the resulting data have not been altered in any way.

(8) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with an opacity or visible emission standard upon obtaining all the compliance information required by the relevant standard (including the written reports of the results of the performance tests required by § 63.7, the results of Test Method 9 or another required opacity or visible emission test method, the observer certification required by paragraph (h)(6) of this section, and the continuous opacity monitoring system results, whichever is/are applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(9) *Adjustment to an opacity emission standard.* (i) If the Administrator finds under paragraph (h)(8) of this section that an affected source is in compliance with all relevant standards for which initial performance tests were conducted under § 63.7, but during the time such performance tests were conducted fails to meet any relevant opacity emission standard, the owner or operator of such source may petition the Administrator to make appropriate adjustment to the opacity emission standard for the affected source. Until the Administrator notifies the owner or operator of the appropriate adjustment, the relevant opacity emission standard remains applicable.

(ii) The Administrator may grant such a petition upon a demonstration by the owner or operator that --

(A) The affected source and its associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests;

(B) The performance tests were performed under the conditions established by the Administrator; and

(C) The affected source and its associated air pollution control equipment were incapable of being adjusted or operated to meet the relevant opacity emission standard.

(iii) The Administrator will establish an adjusted opacity emission standard for the affected source meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity emission standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity emission standard in the Federal Register.

(iv) After the Administrator promulgates an adjusted opacity emission standard for an affected source, the owner or operator of such source shall be subject to the new opacity emission standard, and the new opacity emission standard shall apply to such source during any subsequent performance tests.

(i) *Extension of compliance with emission standards.* (1) Until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph, the owner or operator of an affected source subject to the requirements of this section shall comply with all applicable requirements of this part.

(2) *Extension of compliance for early reductions and other reductions* -- (i) *Early reductions.* Pursuant to section 112(i)(5) of the Act, if the owner or operator of an existing source demonstrates that the source has achieved a reduction in emissions of hazardous air pollutants in accordance with the provisions of subpart D of this part, the Administrator (or the State with an approved permit program) will grant the owner or operator an extension of compliance with specific requirements of this part, as specified in subpart D.

(ii) *Other reductions.* Pursuant to section 112(i)(6) of the Act, if the owner or operator of an existing source has installed best available control technology (BACT) (as defined in section 169(3) of the Act) or technology required to meet a lowest achievable emission rate (LAER) (as defined in section 171 of the Act) prior to the promulgation of an emission standard in this part applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to the BACT or LAER installation, the Administrator will grant the owner or operator an extension of compliance with such emission standard that will apply until the date 5 years after the date on which such installation was achieved, as determined by the Administrator.

(3) *Request for extension of compliance.* Paragraphs (i)(4) through (i)(7) of this section concern requests for an extension of compliance with a relevant standard under this part (except requests for an extension of compliance under paragraph (i)(2)(i) of this section will be handled through procedures specified in subpart D of this part).

(4)(i)(A) The owner or operator of an existing source who is unable to comply with a relevant standard established under this part pursuant to section 112(d) of the Act may request that the Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 1-year extension of compliance is insufficient to dry and cover mining waste in order to reduce emissions of any hazardous air pollutant. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and who is otherwise required to obtain a title V permit shall apply for such permit or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under

this paragraph will be incorporated into the affected source's title V permit according to the provisions of part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.

(B) Any request under this paragraph for an extension of compliance with a relevant standard must be submitted in writing to the appropriate authority no later than 120 days prior to the affected source's compliance date (as specified in paragraphs (b) and (c) of this section), except as provided for in paragraph (i)(4)(i)(C) of this section. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the date of denial. Emission standards established under this part may specify alternative dates for the submittal of requests for an extension of compliance if alternatives are appropriate for the source categories affected by those standards.

(C) An owner or operator may submit a compliance extension request after the date specified in paragraph (i)(4)(i)(B) of this section provided the need for the compliance extension arose after that date, and before the otherwise applicable compliance date and the need arose due to circumstances beyond reasonable control of the owner or operator. This request must include, in addition to the information required in paragraph (i)(6)(i) of this section, a statement of the reasons additional time is needed and the date when the owner or operator first learned of the problems. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the original compliance date.

(ii) The owner or operator of an existing source unable to comply with a relevant standard established under this part pursuant to section 112(f) of the Act may request that the Administrator grant an extension allowing the source up to 2 years after the standard's effective date to comply with the standard. The Administrator may grant such an extension if he/she finds that such additional period is necessary for the installation of controls and that steps will be taken during the period of the extension to assure that the health of persons will be protected from imminent endangerment. Any request for an extension of compliance with a relevant standard under this paragraph must be submitted in writing to the Administrator not later than 90 calendar days after the effective date of the relevant standard.

(5) The owner or operator of an existing source that has installed BACT or technology required to meet LAER [as specified in paragraph (i)(2)(ii) of this section] prior to the promulgation of a relevant emission standard in this part may request that the Administrator grant an extension allowing the source 5 years from the date on which such installation was achieved, as determined by the Administrator, to comply with the standard. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 120 days after the promulgation date of the standard. The Administrator may grant such an extension if he or she finds that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(6)(i) The request for a compliance extension under paragraph (i)(4) of this section shall include the following information:

(A) A description of the controls to be installed to comply with the standard;

(B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

(*1*) The date by which on-site construction, installation of emission control equipment, or a process change is planned to be initiated; and

(*2*) The date by which final compliance is to be achieved.

(*3*) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and

(*4*) The date by which final compliance is to be achieved;

(C) -- (D)

(ii) The request for a compliance extension under paragraph (i)(5) of this section shall include all information needed to demonstrate to the Administrator's satisfaction that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(7) Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).

(8) *Approval of request for extension of compliance.* Paragraphs (i)(9) through (i)(14) of this section concern approval of an extension of compliance requested under paragraphs (i)(4) through (i)(6) of this section.

(9) Based on the information provided in any request made under paragraphs (i)(4) through (i)(6) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with an emission standard, as specified in paragraphs (i)(4) and (i)(5) of this section.

(10) The extension will be in writing and will --

(i) Identify each affected source covered by the extension;

(ii) Specify the termination date of the extension;

(iii) Specify the dates by which steps toward compliance are to be taken, if appropriate;

(iv) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests); and

(v)(A) Under paragraph (i)(4), specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period; or

(B) Under paragraph (i)(5), specify any additional conditions that the Administrator deems necessary to assure the proper operation and maintenance of the installed controls during the extension period.

(11) The owner or operator of an existing source that has been granted an extension of compliance under paragraph (i)(10) of this section may be required to submit to the Administrator (or the State with an approved permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached. The contents of the progress reports and the dates by which

they shall be submitted will be specified in the written extension of compliance granted under paragraph (i)(10) of this section.

(12)(i) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(i) or (i)(5) of this section. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with --

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.

(iv) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(13)(i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(ii) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 15 calendar days after receipt of the original application and within 15 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 15 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with --

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.

(iv) A final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(14) The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraph (i)(10)(iii) or (iv) of this section is not met. Upon a determination to terminate, the Administrator will notify, in writing, the owner or operator of the Administrator's determination to terminate, together with:

(i) Notice of the reason for termination; and

(ii) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the determination to terminate, additional information or arguments to the Administrator before further action on the termination.

(iii) A final determination to terminate an extension of compliance will be in writing and will set forth the specific grounds on which the termination is based. The final determination will be made within 30 calendar days after presentation of additional information or arguments, or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(15) [Reserved]

(16) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the Act.

(j) *Exemption from compliance with emission standards.* The President may exempt any stationary source from compliance with any relevant standard established pursuant to section 112 of the Act for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years.

§ 63.7 Performance testing requirements.

(a) *Applicability and performance test dates.* (1) The applicability of this section is set out in § 63.1(a)(4).

(2) If required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of paragraph (c)(3)(ii)(B) of this section apply, the owner or operator of the affected source must perform such tests within 180 days of the compliance date for such source.

(i)-(viii) [Reserved]

(ix) When an emission standard promulgated under this part is more stringent than the standard proposed (see § 63.6(b)(3)), the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after startup of the source, whichever is later. If the promulgated standard is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after startup of the source, whichever is later, to demonstrate compliance with the promulgated standard.

(3) The Administrator may require an owner or operator to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act.

(b) *Notification of performance test.* (1) The owner or operator of an affected source must notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Administrator, upon request, to review an approve the site-specific test plan required under paragraph (c) of this section and to have an observer present during the test.

(2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in paragraph (b)(1) of this section due to unforeseeable circumstances beyond his or her control, the owner or operator must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(c) *Quality assurance program*. (1) The results of the quality assurance program required in this paragraph will be considered by the Administrator when he/she determines the validity of a performance test.

(2)(i) *Submission of site-specific test plan.* Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.

(iii) The external QA program shall include, at a minimum, application of plans for a test method performance audit (PA) during the performance test. The PA's consist of blind audit samples provided by the Administrator and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a mutually agreed upon date.

(v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

(3) *Approval of site-specific test plan.* (i) The Administrator will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under paragraph (c)(3)(i)(B) of this section. Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with --

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.

(ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in paragraph (c)(3)(i) of this section, the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard or with only minor changes to those tests methods (see paragraph (e)(2)(i) of this section), the owner or operator must conduct the performance test within the time specified in this section using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or after the alternative method is approved (see paragraph (f) of this section). However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval 45 days after submission of the site-specific test plan or request to use an alternative method. The owner or operator is authorized to conduct the

performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(iii) Neither the submission of a site-specific test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall --

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4)(i) *Performance test method audit program.* The owner or operator must analyze performance audit (PA) samples during each performance test. The owner or operator must request performance audit materials 30 days prior to the test date. Audit materials including cylinder audit gases may be obtained by contacting the appropriate EPA Regional Office or the responsible enforcement authority.

(ii) The Administrator will have sole discretion to require any subsequent remedial actions of the owner or operator based on the PA results.

(iii) If the Administrator fails to provide required PA materials to an owner or operator of an affected source in time to analyze the PA samples during a performance test, the requirement to conduct a PA under this paragraph shall be waived for such source for that performance test. Waiver under this paragraph of the requirement to conduct a PA for a particular performance test does not constitute a waiver of the requirement to conduct a PA for future required performance tests.

(d) *Performance testing facilities.* If required to do performance testing, the owner or operator of each new source and, at the request of the Administrator, the owner or operator of each existing source, shall provide performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such source. This includes:

(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and

(ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;

(2) Safe sampling platform(s);

(3) Safe access to sampling platform(s);

(4) Utilities for sampling and testing equipment; and

(5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.

(e) *Conduct of performance tests.* (1) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under § 63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of parts 51, 60, 61, and 63 of this chapter unless the Administrator --

(i) Specifies or approves, in specific cases, the use of a test method with minor changes in methodology (see definition in § 63.90(a)). Such changes may be approved in conjunction with approval of the site-specific test plan (see paragraph (c) of this section); or

(ii) Approves the use of an intermediate or major change or alternative to a test method (see definitions in § 63.90(a)), the results of which the Administrator has determined to be adequate for indicating whether a specific affected source is in compliance; or

(iii) Approves shorter sampling times or smaller sample volumes when necessitated by process variables or other factors; or

(iv) Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Administrator's satisfaction that the affected source is in compliance with the relevant standard.

(3) Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that --

(i) A sample is accidentally lost after the testing team leaves the site; or

(ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or

(iii) Extreme meteorological conditions occur; or

(iv) Other circumstances occur that are beyond the owner or operator's control.

(4) Nothing in paragraphs (e)(1) through (e)(3) of this section shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(f) *Use of an alternative test method* -- (1)*General.* Until authorized to use an intermediate or major change or alternative to a test method, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) The owner or operator of an affected source required to do performance testing by a relevant standard may use an alternative test method from that specified in the standard provided that the owner or operator --

(i) Notifies the Administrator of his or her intention to use an alternative test method at least 60 days before the performance test is scheduled to begin;

(ii) Uses Method 301 in appendix A of this part to validate the alternative test method. This may include the use of specific procedures of Method 301 if use of such procedures are sufficient to validate the alternative test method; and

(iii) Submits the results of the Method 301 validation process along with thnotification of intention and the justification for not using the specified test method. The owner or operator may submit the information required in this paragraph well in advance of the deadline specified in paragraph (f)(2)(i) of this section to ensure a timely review by the Administrator in order to meet the performance test date specified in this section or the relevant standard.

(3) The Administrator will determine whether the owner or operator's validation of the proposed alternative test method is adequate and issue an approval or disapproval of the alternative test method. If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method. However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval/disapproval 45 days after submission of the request to use an alternative method and the request satisfies the requirements in paragraph (f)(2) of this section. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(4) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with a relevant standard, the Administrator may require the use of a test method specified in a relevant standard.

(5) If the owner or operator uses an alternative test method for an affected source during a required performance test, the owner or operator of such source shall continue to use the alternative test method for subsequent performance tests at that affected source until he or she receives approval from the Administrator to use another test method as allowed under § 63.7(f).

(6) Neither the validation and approval process nor the failure to validate an alternative test method shall abrogate the owner or operator's responsibility to comply with the requirements of this part.

(g) *Data analysis, record keeping, and reporting.* (1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is "completed" when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator (see § 63.9(i)). The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the appropriate permitting authority.

(2) [Reserved]

(3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.

(h) *Waiver of performance tests.* (1) Until a waiver of a performance testing requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) *Request to waive a performance test.* (i) If a request is made for an extension of compliance under § 63.6(i), the application for a waiver of an initial performance test shall accompany the information required for the request for an extension of compliance. If no extension of compliance is requested or if the owner or operator has requested an extension of compliance and the Administrator is still considering that request, the application for a waiver of an initial performance test shall be submitted at least 60 days before the performance test if the site-specific test plan under paragraph (c) of this section is not submitted.

(ii) If an application for a waiver of a subsequent performance test is made, the application may accompany any required compliance progress report, compliance status report, or excess emissions and continuous monitoring system performance report [such as those required under § 63.6(i), § 63.9(h), and § 63.10(e) or specified in a relevant standard or in the source's title V permit], but it shall be submitted at least 60 days before the performance test if the site-specific test plan required under paragraph (c) of this section is not submitted.

(iii) Any application for a waiver of a performance test shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test.

(4) *Approval of request to waive performance test.* The Administrator will approve or deny a request for a waiver of a performance test made under paragraph (h)(3) of this section when he/she --

(i) Approves or denies an extension of compliance under § 63.6(i)(8); or

(ii) Approves or disapproves a site-specific test plan under § 63.7(c)(3); or

(iii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iv) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

§ 63.8 Monitoring requirements.

(a) *Applicability.* (1) The applicability of this section is set out in § 63.1(a)(4).

(2) For the purposes of this part, all CMS required under relevant standards shall be subject to the provisions of this section upon promulgation of performance specifications for CMS as specified in the relevant standard or otherwise by the Administrator.

(3) [Reserved]

(4) Additional monitoring requirements for control devices used to comply with provisions in relevant standards of this part are specified in § 63.11.

(b) *Conduct of monitoring.* (1) Monitoring shall be conducted as set forth in this section and the relevant standard(s) unless the Administrator --

(i) Specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures (see § 63.90(a) for definition); or

(ii) Approves the use of an intermediate or major change or alternative to any monitoring requirements or procedures (see § 63.90(a) for definition).

(iii) Owners or operators with flares subject to § 63.11(b) are not subject to the requirements of this section unless otherwise specified in the relevant standard.

(2)(i) When the emissions from two or more affected sources are combined before being released to the atmosphere, the owner or operator may install an applicable CMS for each emission stream or for the combined emissions streams, provided the monitoring is sufficient to demonstrate compliance with the relevant standard.

(ii) If the relevant standard is a mass emission standard and the emissions from one affected source are released to the atmosphere through more than one point, the owner or operator must install an applicable CMS at each emission point unless the installation of fewer systems is --

(A) Approved by the Administrator; or

(B) Provided for in a relevant standard (e.g., instead of requiring that a CMS be installed at each emission point before the effluents from those points are channeled to a common control device, the standard specifies that only one CMS is required to be installed at the vent of the control device).

(3) When more than one CMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CMS. However, when one CMS is used as a backup to another CMS, the owner or operator shall report the results from the CMS used to meet the monitoring requirements of this part. If both such CMS are used during a particular reporting period to meet the monitoring requirements of this part, then the owner or operator shall report the results from each CMS for the relevant compliance period.

(c) *Operation and maintenance of continuous monitoring systems.* (1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices. (i) The owner or operator of an affected source must maintain and operate each CMS as specified in § 63.6(e)(1).

(ii) The owner or operator must keep the necessary parts for routine repairs of the affected CMS equipment readily available.

(iii) The owner or operator of an affected source must develop and implement a written startup, shutdown, and malfunction plan for CMS as specified in § 63.6(e)(3).

(2)(i) All CMS must be installed such that representative measures of emissions or process parameters from the affected source are obtained. In addition, CEMS must be located according to procedures contained in the applicable performance specification(s).

(ii) Unless the individual subpart states otherwise, the owner or operator must ensure the read out (that portion of the CMS that provides a visual display or record), or other indication of operation, from any CMS required for compliance with the emission standard is readily accessible on site for operational control or inspection by the operator of the equipment.

(3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under § 63.7. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.

(4) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(i) All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(ii) All CEMS for measuring emissions other than opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(5) Unless otherwise approved by the Administrator, minimum procedures for COMS shall include a method for producing a simulated zero opacity condition and an upscale (high-level) opacity condition

using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of all the analyzer's internal optical surfaces and all electronic circuitry, including the lamp and photodetector assembly normally used in the measurement of opacity.

(6) The owner or operator of a CMS that is not a CPMS, which is installed in accordance with the provisions of this part and the applicable CMS performance specification(s), must check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under paragraphs (e)(3)(i) and (ii) of this section. The zero (low-level) and high-level calibration drifts must be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s) specified in the relevant standard. The system shall allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified whenever specified. For COMS, all optical and instrumental surfaces exposed to the effluent gases must be cleaned prior to performing the zero (low-level) and high-level drift adjustments; the optical surfaces and instrumental surfaces must be cleaned when the cumulative automatic zero compensation, if applicable, exceeds 4 percent opacity. The CPMS must be calibrated prior to use for the purposes of complying with this section. The CPMS must be checked daily for indication that the system is responding. If the CPMS system includes an internal system check, results must be recorded and checked daily for proper operation.

(7)(i) A CMS is out of control if --

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or

(B) The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or

(C) The COMS CD exceeds two times the limit in the applicable performance specification in the relevant standard.

(ii) When the CMS is out of control, the owner or operator of the affected source shall take the necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement established under this part.

(8) The owner or operator of a CMS that is out of control as defined in paragraph (c)(7) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in § 63.10(e)(3).

(d) *Quality control program.* (1) The results of the quality control program required in this paragraph will be considered by the Administrator when he/she determines the validity of monitoring data.

(2) The owner or operator of an affected source that is required to use a CMS and is subject to the monitoring requirements of this section and a relevant standard shall develop and implement a CMS quality control program. As part of the quality control program, the owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph (e)(3)(i) of this section, according to the procedures specified in paragraph (e). In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:

(i) Initial and any subsequent calibration of the CMS;

(ii) Determination and adjustment of the calibration drift of the CMS;

(iii) Preventive maintenance of the CMS, including spare parts inventory;

(iv) Data recording, calculations, and reporting;

(v) Accuracy audit procedures, including sampling and analysis methods; and

(vi) Program of corrective action for a malfunctioning CMS.

(3) The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and record keeping efforts.

(e) *Performance evaluation of continuous monitoring systems* -- (1) *General.* When required by a relevant standard, and at any other time the Administrator may require under section 114 of the Act, the owner or operator of an affected source being monitored shall conduct a performance evaluation of the CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures described in this section or in the relevant standard.

(2) *Notification of performance evaluation.* The owner or operator shall notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under § 63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.

(3)(i) *Submission of site-specific performance evaluation test plan.* Before conducting a required CMS performance evaluation, the owner or operator of an affected source shall develop and submit a site-specific performance evaluation test plan to the Administrator for approval upon request. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external

QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iii) The owner or operator of an affected source shall submit the site-specific performance evaluation test plan to the Administrator (if requested) at least 60 days before the performance test or performance evaluation is scheduled to begin, or on a mutually agreed upon date, and review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan (if review of the site-specific test plan is requested).

(iv) The Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.

(v) In the event that the Administrator fails to approve or disapprove the site-specific performance evaluation test plan within the time period specified in § 63.7(c)(3), the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the monitoring method(s) specified in the relevant standard, the owner or operator shall conduct the performance evaluation within the time specified in this subpart using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to a monitoring method specified in the relevant standard, the owner or operator shall refrain from conducting the performance evaluation until the Administrator approves the use of the alternative method. If the Administrator does not approve the use of the alternative method within 30 days before the performance evaluation is scheduled to begin, the performance evaluation deadlines specified in paragraph (e)(4) of this section may be extended such that the owner or operator shall conduct the performance evaluation within 60 calendar days after the Administrator approves the use of the alternative method. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance evaluation as required in this section (without the Administrator's prior approval of the site-specific performance evaluation test plan) if he/she subsequently chooses to use the specified monitoring method(s) instead of an alternative.

(vi) Neither the submission of a site-specific performance evaluation test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator' failure to approve or disapprove a plan in a timely manner shall --

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) *Conduct of performance evaluation and performance evaluation dates.* The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under § 63.7 in accordance with the applicable performance specification as specified in the relevant standard. Notwithstanding the requirement in the previous sentence, if the owner or operator of an affected source elects to submit COMS data for compliance with a relevant opacity emission standard as provided under § 63.6(h)(7), he/she shall conduct a performance evaluation of the COMS as specified in the relevant standard, before the performance test required under § 63.7 is conducted in time to submit the results of the performance evaluation as specified in paragraph (e)(5)(ii) of this section. If a performance test is not required, or the requirement for a performance test has been waived under § 63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later than 180 days after the appropriate compliance date for the affected source, as specified in § 63.7(a), or as otherwise specified in the relevant standard.

(5) *Reporting performance evaluation results.* (i) The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation simultaneously with the results of the performance test required under § 63.7 or within 60 days of completion of the performance evaluation if no test is required, unless otherwise specified in a relevant standard. The Administrator may request that the owner or operator submit the raw data from a performance evaluation in the report of the performance evaluation results.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation under this paragraph. The copies shall be provided at least 15 calendar days before the performance test required under § 63.7 is conducted.

(f) *Use of an alternative monitoring method.* -- (1) *General.* Until permission to use an alternative monitoring procedure (minor, intermediate, or major changes; see definition in § 63.90(a)) has been granted by the Administrator under this paragraph (f)(1), the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this part including, but not limited to, the following:

(i) Alternative monitoring requirements when installation of a CMS specified by a relevant standard would not provide accurate measurements due to liquid water or other interferences caused by substances within the effluent gases;

(ii) Alternative monitoring requirements when the affected source is infrequently operated;

(iii) Alternative monitoring requirements to accommodate CEMS that require additional measurements to correct for stack moisture conditions;

(iv) Alternative locations for installing CMS when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements;

(v) Alternate methods for converting pollutant concentration measurements to units of the relevant standard;

(vi) Alternate procedures for performing daily checks of zero (low-level) and high-level drift that do not involve use of high-level gases or test cells;

(vii) Alternatives to the American Society for Testing and Materials (ASTM) test methods or sampling procedures specified by any relevant standard;

(viii) Alternative CMS that do not meet the design or performance requirements in this part, but adequately demonstrate a definite and consistent relationship between their measurements and the measurements of opacity by a system complying with the requirements as specified in the relevant standard. The Administrator may require that such demonstration be performed for each affected source; or

(ix) Alternative monitoring requirements when the effluent from a single affected source or the combined effluent from two or more affected sources is released to the atmosphere through more than one point.

(3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section or in the relevant standard. If the results of the specified and alternative method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.

(4)(i) *Request to use alternative monitoring procedure.* An owner or operator who wishes to use an alternative monitoring procedure must submit an application to the Administrator as described in paragraph (f)(4)(ii) of this section. The application may be submitted at any time provided that the monitoring procedure is not the performance test method used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring procedure will serve as the performance test method that is to be used to demonstrate compliance with a relevant standard, the application must be submitted at least 60 days before the performance evaluation is scheduled to begin and must meet the requirements for an alternative test method under § 63.7(f).

(ii) The application must contain a description of the proposed alternative monitoring system which addresses the four elements contained in the definition of monitoring in § 63.2 and a performance evaluation test plan, if required, as specified in paragraph (e)(3) of this section. In addition, the application must include information justifying the owner or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.

(iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (f)(4)(i) above to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this section or the relevant standard.

(iv) Application for minor changes to monitoring procedures, as specified in paragraph (b)(1) of this section, may be made in the site-specific performance evaluation plan.

(5) *Approval of request to use alternative monitoring procedure.*

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the request to use an alternative monitoring method within 30 calendar days after receipt of the original

request and within 30 calendar days after receipt of any supplementary information that is submitted. If a request for a minor change is made in conjunction with site-specific performance evaluation plan, then approval of the plan will constitute approval of the minor change. Before disapproving any request to use an alternative monitoring method, the Administrator will notify the applicant of the Administrator's intention to disapprove the request together with --

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.

(ii) The Administrator may establish general procedures and criteria in a relevant standard to accomplish the requirements of paragraph (f)(5)(i) of this section.

(iii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (f)(5)(i) of this section, the owner or operator of such source shall continue to use the alternative monitoring method until he or she receives approval from the Administrator to use another monitoring method as allowed by § 63.8(f).

(6) *Alternative to the relative accuracy test.* An alternative to the relative accuracy test for CEMS specified in a relevant standard may be requested as follows:

(i) *Criteria for approval of alternative procedures.* An alternative to the test method for determining relative accuracy is available for affected sources with emission rates demonstrated to be less than 50 percent of the relevant standard. The owner or operator of an affected source may petition the Administrator under paragraph (f)(6)(ii) of this section to substitute the relative accuracy test in section 7 of Performance Specification 2 with the procedures in section 10 if the results of a performance test conducted according to the requirements in § 63.7, or other tests performed following the criteria in § 63.7, demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50 percent of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the owner or operator may petition the Administrator to substitute the relative accuracy test with the procedures in section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the CEMS is used continuously to determine compliance with the relevant standard.

(ii) *Petition to use alternative to relative accuracy test.* The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Administrator will review the petition for completeness and applicability. The Administrator's determination to approve an alternative will depend on the intended use of the CEMS data and may require specifications more stringent than in Performance Specification 2.

(iii) *Rescission of approval to use alternative to relative accuracy test.* The Administrator will review the permission to use an alternative to the CEMS relative accuracy test and may rescind such permission if the CEMS data from a successful completion of the alternative relative accuracy procedure indicate that the affected source's emissions are approaching the level of the relevant standard. The criterion for reviewing the permission is that the collection of CEMS data shows that emissions have exceeded 70 percent of the relevant standard for any averaging period, as specified in the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the criterion for reviewing the permission is that the collection of CEMS data shows that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for any averaging period, as specified in the relevant standard. The owner or operator of the affected source shall maintain records and determine the level of emissions relative to the criterion for permission to use an alternative for relative accuracy testing. If this criterion is exceeded, the owner or operator shall notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increased emissions. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 7 of Performance Specification 2.

(g) *Reduction of monitoring data.* (1) The owner or operator of each CMS must reduce the monitoring data as specified in paragraphs (g)(1) through (5) of this section.

(2) The owner or operator of each COMS shall reduce all data to 6-minute averages calculated from 36 or more data points equally spaced over each 6-minute period. Data from CEMS for measurement other than opacity, unless otherwise specified in the relevant standard, shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of this part are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in § 63.2.

(3) The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O2 or ng/J of pollutant).

(4) All emission data shall be converted into units of the relevant standard for reporting purposes using the conversion procedures specified in that standard. After conversion into units of the relevant standard, the data may be rounded to the same number of significant digits as used in that standard to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

(5) Monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments must not be included in any data average computed under this part. For the owner or operator complying with the requirements of § 63.10(b)(2)(vii)(A) or (B), data averages must include any data recorded during periods of monitor breakdown or malfunction.

§ 63.9 Notification requirements.

(a) *Applicability and general information.* (1) The applicability of this section is set out in § 63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a notice that contains all the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.

(4)(i) Before a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(ii) After a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each notification submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any notifications at its discretion.

(b) *Initial notifications.* (1)(i) The requirements of this paragraph apply to the owner or operator of an affected source when such source becomes subject to a relevant standard.

(ii) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source shall be subject to the notification requirements of this section.

(iii) Affected sources that are required under this paragraph to submit an initial notification may use the application for approval of construction or reconstruction under § 63.5(d) of this subpart, if relevant, to fulfill the initial notification requirements of this paragraph.

(2) The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:

(i) The name and address of the owner or operator;

(ii) The address (i.e., physical location) of the affected source;

(iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;

(iv) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and

(v) A statement of whether the affected source is a major source or an area source.

(3) [Reserved]

(4) The owner or operator of a new or reconstructed major affected source for which an application for approval of construction or reconstruction is required under § 63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new major-emitting affected source, reconstruct a major-emitting affected source, or reconstruct a major source such that the source becomes a major-emitting affected source with the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i); and

(ii)-(iv) [Reserved]

(v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(5) The owner or operator of a new or reconstructed affected source for which an application for approval of construction or reconstruction is not required under § 63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new affected source, reconstruct an affected source, or reconstruct a source such that the source becomes an affected source, and

(ii) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(iii) Unless the owner or operator has requested and received prior permission from the Administrator to submit less than the information in § 63.5(d), the notification must include the information required on the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i).

(c) *Request for extension of compliance.* If the owner or operator of an affected source cannot comply with a relevant standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with § 63.6(i)(5) of this subpart, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in § 63.6(i)(4) through § 63.6(i)(6).

(d) *Notification that source is subject to special compliance requirements.* An owner or operator of a new source that is subject to special compliance requirements as specified in § 63.6(b)(3) and § 63.6(b)(4) shall notify the Administrator of his/her compliance obligations not later than the notification dates established in paragraph (b) of this section for new sources that are not subject to the special provisions.

(e) *Notification of performance test.* The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site-specific test plan required under § 63.7(c), if requested by the Administrator, and to have an observer present during the test.

(f) *Notification of opacity and visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting the opacity or visible emission observations specified in § 63.6(h)(5), if such observations are required for the source by a relevant standard. The notification shall be submitted with the notification of the performance test date, as specified in paragraph (e) of this section, or if no performance test is required or visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under § 63.7, the owner or operator shall deliver or postmark the notification not less than 30 days before the opacity or visible emission observations are scheduled to take place.

(g) *Additional notification requirements for sources with continuous monitoring systems.* The owner or operator of an affected source required to use a CMS by a relevant standard shall furnish the Administrator written notification as follows:

(1) A notification of the date the CMS performance evaluation under § 63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under § 63.7(b). If no performance test is required, or if the requirement to conduct a performance test has been waived for an affected source under § 63.7(h), the owner or operator shall notify the Administrator in writing of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin;

(2) A notification that COMS data results will be used to determine compliance with the applicable opacity emission standard during a performance test required by § 63.7 in lieu of Method 9 or other opacity emissions test method data, as allowed by § 63.6(h)(7)(ii), if compliance with an opacity emission standard is required for the source by a relevant standard. The notification shall be submitted at least 60 calendar days before the performance test is scheduled to begin; and

(3) A notification that the criterion necessary to continue use of an alternative to relative accuracy testing, as provided by § 63.8(f)(6), has been exceeded. The notification shall be delivered or postmarked not later than 10 days after the occurrence of such exceedance, and it shall include a description of the nature and cause of the increased emissions.

(h) *Notification of compliance status.* (1) The requirements of paragraphs (h)(2) through (h)(4) of this section apply when an affected source becomes subject to a relevant standard.

(2)(i) Before a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit to the Administrator a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list --

(A) The methods that were used to determine compliance;

(B) The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;

(C) The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;

(D) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard;

(E) If the relevant standard applies to both major and area sources, an analysis demonstrating whether the affected source is a major source (using the emissions data generated for this notification);

(F) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and

(G) A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements.

(ii) The notification must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in the standard, in which case the letter must be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or postmarked). For example, the notification shall be sent before close of business on the 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (or other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under this part, the notification of compliance status shall be sent before close of business on the 30th day following the completion of opacity or visible emission observations. Notifications may be combined as long as the due date requirement for each notification is met.

(3) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this part. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in the relevant standard.

(4) [Reserved]

(5) If an owner or operator of an affected source submits estimates or preliminary information in the application for approval of construction or reconstruction required in § 63.5(d) in place of the actual emissions data or control efficiencies required in paragraphs (d)(1)(ii)(H) and (d)(2) of § 63.5, the owner or operator shall submit the actual emissions data and other correct information as soon as available but no later than with the initial notification of compliance status required in this section.

(6) Advice on a notification of compliance status may be obtained from the Administrator.

(i) *Adjustment to time periods or postmark deadlines for submittal and review of required communications.* (1)(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (i)(2) and (i)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (i)(2) and (i)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

(j) *Change in information already provided.* Any change in the information already provided under this section shall be provided to the Administrator in writing within 15 calendar days after the change.

§ 63.10 Record keeping and reporting requirements.

(a) *Applicability and general information.* (1) The applicability of this section is set out in § 63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a report that contains all the information required in a report listed in this section, an owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.

(4)(i) Before a State has been delegated the authority to implement and enforce record keeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(ii) After a State has been delegated the authority to implement and enforce record keeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each report submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any reports at its discretion.

(5) If an owner or operator of an affected source in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such source under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. For each relevant standard established pursuant to section 112 of the Act, the allowance in the previous sentence applies in each State beginning 1 year after the affected source's compliance date for that standard. Procedures governing the implementation of this provision are specified in § 63.9(i).

(6) If an owner or operator supervises one or more stationary sources affected by more than one standard established pursuant to section 112 of the Act, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required for each source shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the latest compliance date for any relevant standard established pursuant to section 112 of the Act for any such affected source(s). Procedures governing the implementation of this provision are specified in § 63.9(i).

(7) If an owner or operator supervises one or more stationary sources affected by standards established pursuant to section 112 of the Act (as amended November 15, 1990) and standards set under part 60, part 61, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required by each relevant (i.e., applicable) standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the relevant section 112 standard, or 1 year after the stationary source is required to be in compliance with the applicable part 60 or part 61 standard, whichever is latest. Procedures governing the implementation of this provision are specified in § 63.9(i).

(b) *General record keeping requirements.* (1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of --

(i) The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment);

(ii) The occurrence and duration of each malfunction of the required air pollution control and monitoring equipment;

(iii) All required maintenance performed on the air pollution control and monitoring equipment;

(iv) Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3));

(v) All information necessary to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)) when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of record keeping, in order to minimize the record keeping burden for conforming events);

(vi) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);

(vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);

(A) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(B) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(C) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (b)(2)(vii), if the administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;

(ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

(x) All CMS calibration checks;

(xi) All adjustments and maintenance performed on CMS;

(xii) Any information demonstrating whether a source is meeting the requirements for a waiver of record keeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section;

(xiii) All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission under § 63.8(f)(6); and

(xiv) All documentation supporting initial notifications and notifications of compliance status under § 63.9.

(3) *Record keeping requirement for applicability determinations.* If an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f), and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under this part) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source).

The analysis (or other information) must be sufficiently detailed to allow the Administrator to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112, if any. The requirements to determine applicability of a standard under § 63.1(b)(3) and to record the results of that determination under paragraph (b)(3) of this section shall not by themselves create an obligation for the owner or operator to obtain a title V permit.

(c) *Additional record keeping requirements for sources with continuous monitoring systems.* In addition to complying with the requirements specified in paragraphs (b)(1) and (b)(2) of this section, the owner or operator of an affected source required to install a CMS by a relevant standard shall maintain records for such source of --

(1) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods);

(2)-(4) [Reserved]

(5) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;

(6) The date and time identifying each period during which the CMS was out of control, as defined in § 63.8(c)(7);

(7) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source;

(8) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;

(9) [Reserved]

(10) The nature and cause of any malfunction (if known);

(11) The corrective action taken or preventive measures adopted;

(12) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;

(13) The total process operating time during the reporting period; and

(14) All procedures that are part of a quality control program developed and implemented for CMS under § 63.8(d).

(15) In order to satisfy the requirements of paragraphs (c)(10) through (c)(12) of this section and to avoid duplicative record keeping efforts, the owner or operator may use the affected source's startup, shutdown, and malfunction plan or records kept to satisfy the record keeping requirements of the startup, shutdown, and malfunction plan specified in § 63.6(e), provided that such plan and records adequately address the requirements of paragraphs (c)(10) through (c)(12).

(d) *General reporting requirements.* (1) Notwithstanding the requirements in this paragraph or paragraph (e) of this section, the owner or operator of an affected source subject to reporting requirements under this part shall submit reports to the Administrator in accordance with the reporting requirements in the relevant standard(s).

(2) *Reporting results of performance tests.* Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of any performance test under § 63.7 to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of a required performance test to the appropriate permitting authority. The owner or operator of an affected source shall report the results of the performance test to the Administrator (or the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h).

(3) *Reporting results of opacity or visible emission observations.* The owner or operator of an affected source required to conduct opacity or visible emission observations by a relevant standard shall report the opacity or visible emission results (produced using Test Method 9 or Test Method 22, or an alternative to these test methods) along with the results of the performance test required under § 63.7. If no performance test is required, or if visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the performance test required under § 63.7, the

owner or operator shall report the opacity or visible emission results before the close of business on the 30th day following the completion of the opacity or visible emission observations.

(4) *Progress reports.* The owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under § 63.6(i) shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.

(5)(i) *Periodic startup, shutdown, and malfunction reports.* If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)), the owner or operator shall state such information in a startup, shutdown, and malfunction report. Such a report shall identify any instance where any action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the affected source's startup, shutdown, and malfunction plan, but the source does not exceed any applicable emission limitation in the relevant emission standard.

Such a report shall also include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semiannually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.

(ii) *Immediate startup, shutdown, and malfunction reports.* Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph (d)(5)(i) of this section, any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph (d)(5)(ii) shall consist of a telephone call (or facsimile (FAX) transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be

followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred. Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph (d)(5)(ii) are specified in § 63.9(i).

(e) *Additional reporting requirements for sources with continuous monitoring systems* -- (1) *General*. When more than one CEMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CEMS.

(2) *Reporting results of continuous monitoring system performance evaluations*. (i) The owner or operator of an affected source required to install a CMS by a relevant standard shall furnish the Administrator a copy of a written report of the results of the CMS performance evaluation, as required under § 63.8(e), simultaneously with the results of the performance test required under § 63.7, unless otherwise specified in the relevant standard.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation conducted under § 63.8(e). The copies shall be furnished at least 15 calendar days before the performance test required under § 63.7 is conducted.

(3) *Excess emissions and continuous monitoring system performance report and summary report.* (i) Excess emissions and parameter monitoring exceedances are defined in relevant standards. The owner or operator of an affected source required to install a CMS by a relevant standard shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator semiannually, except when --

(A) More frequent reporting is specifically required by a relevant standard;

(B) The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or

(C) [Reserved]

(ii) *Request to reduce frequency of excess emissions and continuous monitoring system performance reports.* Notwithstanding the frequency of reporting requirements specified in paragraph (e)(3)(i) of this section, an owner or operator who is required by a relevant standard to submit excess emissions and continuous monitoring system performance (and summary) reports on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(A) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected source's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance with the relevant standard;

(B) The owner or operator continues to comply with all record keeping and monitoring requirements specified in this subpart and the relevant standard; and

(C) The Administrator does not object to a reduced frequency of reporting for the affected source, as provided in paragraph (e)(3)(iii) of this section.

(iii) The frequency of reporting of excess emissions and continuous monitoring system performance (and summary) reports required to comply with a relevant standard may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the 5-year record keeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(iv) As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the frequency of reporting shall revert to the frequency specified in the relevant standard, and the owner or operator shall submit an excess emissions and continuous monitoring system performance (and summary) report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. After demonstrating ongoing compliance with the relevant standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard, as provided for in paragraphs (e)(3)(ii) and (e)(3)(iii) of this section.

(v) *Content and submittal dates for excess emissions and monitoring system performance reports.* All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all the information required in paragraphs (c)(5) through (c)(13) of this section, in § 63.8(c)(7) and § 63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

(vi) *Summary report.* As required under paragraphs (e)(3)(vii) and (e)(3)(viii) of this section, one summary report shall be submitted for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one summary report for each hazardous air pollutant monitored). The summary report shall be entitled "Summary

Report -- Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance" and shall contain the following information:

(A) The company name and address of the affected source;

(B) An identification of each hazardous air pollutant monitored at the affected source;

(C) The beginning and ending dates of the reporting period;

(D) A brief description of the process units;

(E) The emission and operating parameter limitations specified in the relevant standard(s);

(F) The monitoring equipment manufacturer(s) and model number(s);

(G) The date of the latest CMS certification or audit;

(H) The total operating time of the affected source during the reporting period;

(I) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;

(J) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;

(K) A description of any changes in CMS, processes, or controls since the last reporting period;

(L) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and

(M) The date of the report.

(vii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report shall be submitted, and the full excess emissions and continuous monitoring system performance report need not be submitted unless required by the Administrator.

(viii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the

reporting period, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted.

(4) *Reporting continuous opacity monitoring system data produced during a performance test.* The owner or operator of an affected source required to use a COMS shall record the monitoring data produced during a performance test required under § 63.7 and shall furnish the Administrator a written report of the monitoring results. The report of COMS data shall be submitted simultaneously with the report of the performance test results required in paragraph (d)(2) of this section.

(f) *Waiver of record keeping or reporting requirements.* (1) Until a waiver of a record keeping or reporting requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Record keeping or reporting requirements may be waived upon written application to the Administrator if, in the Administrator's judgment, the affected source is achieving the relevant standard(s), or the source is operating under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) If an application for a waiver of record keeping or reporting is made, the application shall accompany the request for an extension of compliance under § 63.6(i), any required compliance progress report or compliance status report required under this part (such as under § 63.6(i) and § 63.9(h)) or in the source's title V permit, or an excess emissions and continuous monitoring system performance report required under paragraph (e) of this section, whichever is applicable. The application shall include whatever information the owner or operator considers useful to convince the Administrator that a waiver of record keeping or reporting is warranted.

(4) The Administrator will approve or deny a request for a waiver of record keeping or reporting requirements under this paragraph when he/she --

(i) Approves or denies an extension of compliance; or

(ii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iii) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) A waiver of any record keeping or reporting requirement granted under this paragraph may be conditioned on other record keeping or reporting requirements deemed necessary by the Administrator.

(6) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

§ 63.11 Control device requirements.

(a) *Applicability.* The applicability of this section is set out in § 63.1(a)(4).

(b) *Flares*. (1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs.

Applicable subparts will provide provisions stating how owners or operators using flares shall monitor these control devices.

(2) Flares shall be steam-assisted, air-assisted, or non-assisted.

(3) Flares shall be operated at all times when emissions may be vented to them.

(4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.

(5) Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(6) An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(i) of this section.

(i)(A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity Vmax, as determined by the following equation:

$$Vmax=(XH2 ! K1)* K2$$

where:

Vmax=Maximum permitted velocity, m/sec.

K1=Constant, 6.0 volume-percent hydrogen.

K2=Constant, 3.9(m/sec)/volume-percent hydrogen.

XH2=The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in § 63.14).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 M/scm (200 Btu/scf) or greater if the flares is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K\sum_{i=1}^{n} C_i H_i$$

where:

HT=Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

K=Constant=

$$1.740\times10^{-7}\left(\frac{1}{ppmv}\right)\left(\frac{\text{g-mole}}{\text{scm}}\right)\left(\frac{\text{MJ}}{\text{kcal}}\right)$$

where the standard temperature for (g-mole/scm) is 20 °C.

Ci=Concentration of sample component i in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946-77 or 90 (Reapproved 1994) (incorporated by reference as specified in § 63.14).

Hi=Net heat of combustion of sample component i, kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in § 63.14) if published values are not available or cannot be calculated.

n=Number of sample components.

(7)(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity Vmax, as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, Vmax, for flares complying with this paragraph shall be determined by the following equation:

$$\text{Log10}(V_{max})=(HT+28.8)/31.7$$

where:

Vmax=Maximum permitted velocity, m/sec.

28.8=Constant.

31.7=Constant.

HT=The net heating value as determined in paragraph (b)(6) of this section.

(8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity Vmax. The maximum permitted velocity, Vmax, for air-assisted flares shall be determined by the following equation:

$$V4max = 8.71 + 0.708(HT)$$

where:

Vmax=Maximum permitted velocity, m/sec.

8.71=Constant.

0.708=Constant.

HT=The net heating value as determined in paragraph (b)(6)(ii) of this section.

§ 63.12 State authority and delegations.

(a) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from --

(1) Adopting and enforcing any standard, limitation, prohibition, or other regulation applicable to an affected source subject to the requirements of this part, provided that such standard, limitation, prohibition, or regulation is not less stringent than any requirement applicable to such source established under this part;

(2) Requiring the owner or operator of an affected source to obtain permits, licenses, or approvals prior to initiating construction, reconstruction, modification, or operation of such source; or

(3) Requiring emission reductions in excess of those specified in subpart D of this part as a condition for granting the extension of compliance authorized by section 112(i)(5) of the Act.

(b)(1) Section 112(l) of the Act directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards and other requirements pursuant to section 112 for stationary sources located in that State. Because of the unique nature of radioactive material, delegation of authority to implement and enforce standards that control radionuclides may require separate approval.

(2) Subpart E of this part establishes procedures consistent with section 112(l) for the approval of State rules or programs to implement and enforce applicable Federal rules promulgated under the authority of section 112. Subpart E also establishes procedures for the review and withdrawal of section 112 implementation and enforcement authorities granted through a section 112(l) approval.

(c) All information required to be submitted to the EPA under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act, provided that each specific delegation may exempt sources from a certain Federal or State reporting requirement. The Administrator may permit all or some of the information to be submitted to the appropriate State agency only, instead of to the EPA and the State agency.

§ 63.13 Addresses of State air pollution control agencies and EPA Regional Offices.

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted to the appropriate Regional Office of the U.S. Environmental Protection Agency indicated:

EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507.

(b) All information required to be submitted to the Administrator under this part also shall be submitted to the Ohio EPA, Northwest District Office, 347 North Dunbridge Rd., Bowling Green, Ohio 43402, to which authority has been delegated under section 112(l) of the Clean Air Act as amended in 1990.

(c) If any State requires a submittal that contains all the information required in an application, notification, request, report, statement, or other communication required in this part, an owner or operator may send the appropriate Regional Office of the EPA a copy of that submittal to satisfy the requirements of this part for that communication.

§ 63.14 Incorporations by reference.

(a) The materials listed in this section are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any change in these materials will be published in the Federal Register. The materials are available for purchase at the corresponding addresses noted below, and all are available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC, at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC, and at the EPA Library (MD-35), U.S. EPA, Research Triangle Park, North Carolina.

(b) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959; or ProQuest, 300 North Zeeb Road, Ann Arbor, MI 48106.

(1) ASTM D523-89, Standard Test Method for Specular Gloss, IBR approved for § 63.782.

(2) ASTM D1193-77, 91, Standard Specification for Reagent Water, IBR approved for Appendix A: Method 306, Sections 7.1.1 and 7.4.2.

(3) ASTM D1331-89, Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface Active Agents, IBR approved for Appendix A: Method 306B, Sections 6.2, 11.1, and 12.2.2.

(4) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for § 63.788, Appendix A.

(5) ASTM D1946-77, 90, 94, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for § 63.11(b)(6).

(6) ASTM D2369-93, 95, Standard Test Method for Volatile Content of Coatings, IBR approved for § 63.788, Appendix A.

(7) ASTM D2382-76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for § 63.11(b)(6).

(8) ASTM D2879-83, 96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for § 63.111 of Subpart G.

(9) ASTM D3257-93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IBR approved for § 63.786(b).

(10) ASTM 3695-88, Standard Test Method for Volatile Alcohols in Water by Direct Aqueous-Injection Gas Chromatography, IBR approved for § 63.365(e)(1) of Subpart O.

(11) ASTM D3792-91, Standard Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for § 63.788, Appendix A.

(12) ASTM D3912-80, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(13) ASTM D4017-90, 96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for § 63.788, Appendix A.

(14) ASTM D4082-89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(15) ASTM D4256-89, 94, Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(16) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for § 63.11(b)(6).

(17) ASTM E180-93, Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals, IBR approved for § 63.786(b).

(18) ASTM E260-91, 96, General Practice for Packed Column Gas Chromatography, IBR approved for § 63.750(b)(2) and 63.786(b)(5).

(19)-(20) [Reserved]

(21) ASTM D2099-00, Standard Test Method for Dynamic Water Resistance of Shoe Upper Leather by the Maeser Water Penetration Tester, IBR approved for § 63.5350.

(22)-(23) [Reserved]

(24) ASTM D2697-86 (Reapproved 1998), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, IBR approved for § 63.3521(b)(1), 63.3941(b)(1), 63.4141(b)(1), 63.4741(b)(1), 63.4941(b)(1), and 63.5160(c).

(25) ASTM D6093-97 (Reapproved 2003), Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, IBR approved for § 63.3521(b)(1), 63.3941(b)(1), 63.4141(b)(1), 63.4741(b)(1), 63.4941(b)(1), and 63.5160(c).

(26) ASTM D1475-98, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, IBR approved for § 63.3941(b)(4), 63.3941(c), 63.3951(c), 63.4141(b)(3), and 63.4141(c).

(27) ASTM D 6522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for § 63.9307(c)(2).

(28) [Reserved]

(29) ASTM D6420-99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for § 63.5799 and 63.5850.

(30) ASTM E 515-95 (Reapproved 2000), Standard Test Method for Leaks Using Bubble Emission Techniques, IBR approved for § 63.425(i)(2).

(31) ASTM D5291-02, Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants, IBR approved for § 63.3981, appendix A.

(32) ASTM D5965-02, Standard Test Methods for Specific Gravity of Coating Powders, IBR approved for § 63.3951(c).

(33) ASTM D6053-00, Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes, IBR approved for § 63.3981, appendix A.

(c) The materials listed below are available for purchase from the American Petroleum Institute (API), 1220 L Street, NW., Washington, DC 20005.

(1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989, IBR approved for § 63.111 of subpart G of this part.

(2) API Publication 2518, Evaporative Loss from Fixed-roof Tanks, Second Edition, October 1991, IBR approved for § 63.150(g)(3)(i)(C) of subpart G of this part.

(3) API Manual of Petroleum Measurement Specifications (MPMS) Chapter 19.2, Evaporative Loss From Floating-Roof Tanks (formerly API Publications 2517 and 2519), First Edition, April 1997, IBR approved for § 63.1251 of subpart GGG of this part.

(d) *State and Local Requirements.* The materials listed below are available at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC.

(1) *California Regulatory Requirements Applicable to the Air Toxics Program,* January 5, 1999, IBR approved for § 63.99(a)(5)(ii) of subpart E of this part.

(2) New Jersey's *Toxic Catastrophe Prevention Act Program*, (July 20, 1998), Incorporation By Reference approved for § 63.99 (a)(30)(i) of subpart E of this part.

(3)(i) Letter of June 7, 1999 to the U.S. Environmental Protection Agency Region 3 from the Delaware Department of Natural Resources and Environmental Control requesting formal full delegation to take over primary responsibility for implementation and enforcement of the Chemical Accident Prevention Program under Section 112(r) of the Clean Air Act Amendments of 1990.

(ii) Delaware Department of Natural Resources and Environmental Control, Division of Air and Waste Management, Accidental Release Prevention Regulation, sections 1 through 5 and sections 7 through 14, effective January 11, 1999, IBR approved for § 63.99(a)(8)(i) of subpart E of this part.

(iii) State of Delaware Regulations Governing the Control of Air Pollution (October 2000), IBR approved for § 63.99(a)(8)(ii)-(v) of subpart E of this part.

(4) Massachusetts Regulations Applicable to Hazardous Air Pollutants (July 2002). Incorporation By Reference approved for § 63.99(a)(21)(ii) of subpart E of this part.

(5) New Hampshire Regulations Applicable to Hazardous Air Pollutants, March, 2003. Incorporation by Reference approved for § 63.99(a)(29)(iii) of subpart E of this part.

(e) The materials listed below are available for purchase from the National Institute of Standards and Technology, Springfield, VA 22161, (800) 553-6847.

(1) Handbook 44, Specificiations, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices 1998, IBR approved for § 63.1303(e)(3).

(2) [Reserved]

(f) The following material is available from the National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI), P. O. Box 133318, Research Triangle Park, NC 27709-3318 or at http://www.ncasi.org: NCASI Method DI/MEOH-94.02, Methanol in Process Liquids GC/FID (Gas Chromatography/Flame Ionization Detection), August 1998, Methods Manual, NCASI, Research Triangle Park, NC, IBR approved for § 63.457(c)(3)(ii) of subpart S of this part.

(g) The materials listed below are available for purchase from AOAC International, Customer Services, Suite 400, 2200 Wilson Boulevard, Arlington, Virginia, 22201-3301, Telephone (703) 522-3032, Fax (703) 522-5468.

(1) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(2) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(3) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(4) AOAC Official Method 957.02 Phosphorus (Total) in Fertilizers, Preparation of Sample Solution, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(5) AOAC Official Method 929.01 Sampling of Solid Fertilizers, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(6) AOAC Official Method 929.02 Preparation of Fertilizer Sample, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(7) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(h) The materials listed below are available for purchase from The Association of Florida Phosphate Chemists, P.O. Box 1645, Bartow, Florida, 33830, Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists, Seventh Edition 1991, IBR.

(1) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample, IBR approved for § 63.606(c)(3)(ii) and § 63.626(c)(3)(ii).

(2) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus -- P2O5 or Ca3(PO4)2, Method A-Volumetric Method, IBR approved for § 63.606(c)(3)(ii) and § 63.626(c)(3)(ii).

(3) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P2O5 or Ca3(PO4)2, Method B -- Gravimetric Quimociac Method, IBR approved for § 63.606(c)(3)(ii) and § 63.626(c)(3)(ii).

(4) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P2O5 or Ca3(PO4)2, Method C -- Spectrophotometric Method, IBR approved for § 63.606(c)(3)(ii) and § 63.626(c)(3)(ii).

(5) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P2O5, Method A -- Volumetric Method, IBR approved for § 63.606(c)(3)(ii), § 63.626(c)(3)(ii), and § 63.626(d)(3)(v).

(6) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P2O5, Method B -- Gravimetric Quimociac Method, IBR approved for § 63.606(c)(3)(ii), § 63.626(c)(3)(ii), and § 63.626(d)(3)(v).

(7) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P2O5, Method C -- Spectrophotometric Method, IBR approved for § 63.606(c)(3)(ii), § 63.626(c)(3)(ii), and § 63.626(d)(3)(v).

(i) The following materials are available for purchase from at least one of the following addresses: ASME International, Orders/Inquiries, P.O. Box 2900, Fairfield, NJ 07007-2900; or Global Engineering Documents, Sales Department, 15 Inverness Way East, Englewood, CO 80112.

(1) ASME standard number QHO-1-1994, "Standard for the Qualification and Certification of Hazardous Waste Incinerator Operators," IBR approved for § 63.1206(c)(6)(iii).

(2) ASME standard number QHO-1a-1996 Addenda to QHO-1-1994, "Standard for the Qualification and Certification of Hazardous Waste Incinerator Operators," IBR approved for § 63.1206(c)(6)(iii).

(3) ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]," IBR approved for § 63.865(b), 63.3360(e)(1)(iii), 63.3545(a)(3), 63.3555(a)(3), 63.4166(a)(3), 63.4362(a)(3), 63.4766(a)(3), 63.4965(a)(3), 63.5160(d)(1)(iii), 63.9307(c)(2), and 69.9323(a)(3).

(j) The following material is available for purchase from: British Standards Institute, 389 Chiswick High Road, London W4 4AL, United Kingdom.

(1) BS EN 1593:1999, Non-destructive Testing: Leak Testing -- Bubble Emission Techniques, IBR approved for § 63.425(i)(2).

(2) [Reserved]

(k) The following material may be obtained from U.S. EPA, Office of Solid Waste (5305W), 1200 Pennsylvania Avenue, NW., Washington, DC 20460:

(1) Method 9071B, "n-Hexane Extractable Material(HEM) for Sludge, Sediment, and Solid Samples," (Revision 2, April 1998) as published in EPA Publication SW-846: "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." The incorporation by reference of Method 9071B is approved for Section 63.7824(e) of Subpart FFFFF of this part.

Editorial Note: For Federal Register citations affecting § 63.14, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 63.15 Availability of information and confidentiality.

(a) *Availability of information*. (1) With the exception of information protected through part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), notification of compliance status, excess emissions and continuous monitoring systems performance report, and title V permit is available to the public, consistent with protections recognized in section 503(e) of the Act.

(2) The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.

(b) *Confidentiality.* (1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.

(2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an application for a title V permit may be entitled to protection from disclosure.

11. 40 CFR Part 63, Subpart G - National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater

[The following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart G: T017, T020, T021, T022, T023, T024, T025, T026, T027, T028, T029, T030, T031, T032, T033, T034, T035, T036, T037, T038, T039, T040, T041, T042, T043, T044, T045, T046, T048, T049, T084, T085, T086, T087, T088, T205, T206, T207, and T208.]

§ 63.119 - Storage vessel provisions - reference control technology.

(a) For each storage vessel to which this subpart applies, the owner or operator shall comply with the requirements of paragraphs (a)(1), (a)(2), (a)(3), and (a)(4) of this section according to the schedule provisions of §63.100 of subpart F of this part.

(1) For each Group 1 storage vessel (as defined in table 5 of this subpart for existing sources and table 6 for new sources) storing a liquid for which the maximum true vapor pressure of the total organic hazardous air pollutants in the liquid is less than 76.6 kilopascals, the owner or operator shall reduce hazardous air pollutants emissions to the atmosphere either by operating and maintaining a fixed roof and internal floating roof, an external floating roof, an external floating roof converted to an internal floating roof, or a closed vent system and control device, or routing the emissions to a process or a fuel gas system in accordance with the requirements in paragraph (b), (c), (d), (e), or (f) of this section, or equivalent as provided in §63.121 of this subpart.

(2) For each Group 1 storage vessel (as defined in table 5 of this subpart for existing sources and table 6 of this subpart for new sources) storing a liquid for which the maximum true vapor pressure of the total organic hazardous air pollutants in the liquid is greater than or equal to 76.6 kilopascals, the owner or operator shall operate and maintain a closed vent system and control device meeting the requirements specified in paragraph (e) of this section, or route the emissions to a process or a fuel gas system as specified in paragraph (f) of this section, or equivalent as provided in §63.121 of this subpart.

(3) For each Group 2 storage vessel that is not part of an emissions average as described in §63.150 of this subpart, the owner or operator shall comply with the record keeping requirement in §63.123(a) of this subpart and is not required to comply with any other provisions in §63.119 through 63.123 of this subpart.

(4) For each Group 2 storage vessel that is part of an emissions average, the owner or operator shall comply with the emissions averaging provisions in §63.150 of this subpart.

(b) The owner or operator who elects to use a fixed roof and an internal floating roof, as defined in §63.111 of this subpart, to comply with the requirements of paragraph (a)(1) of this section shall comply with the requirements specified in paragraphs (b)(1) through (b)(6) of this section.

Note:

The intent of paragraphs (b)(1) and (b)(2) of this section is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty.

(1) The internal floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports during the periods specified in paragraphs (b)(1)(i) through (b)(1)(iii) of this section.

(i) During the initial fill.

(ii) After the vessel has been completely emptied and degassed.

(iii) When the vessel is completely emptied before being subsequently refilled.

(2) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.

(3) Each internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. Except as provided in paragraph (b)(3)(iv) of this section, the closure device shall consist of one of the devices listed in paragraph (b)(3)(i), (b)(3)(ii), or (b)(3)(iii) of this section.

(i) A liquid-mounted seal as defined in §63.111 of this subpart.

(ii) A metallic shoe seal as defined in §63.111 of this subpart.

(iii) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor- mounted, but both must be continuous seals.

(iv) If the internal floating roof is equipped with a vapor-mounted seal as of December 31, 1992, the requirement for one of the seal options specified in paragraphs (b)(3)(i), (b)(3)(ii), and (b)(3)(iii) of this section does not apply until the earlier of the dates specified in paragraphs (b)(3)(iv)(A) and (b)(3)(iv)(B) of this section.

(A) The next time the storage vessel is emptied and degassed.

(B) No later than 10 years after April 22, 1994.

(4) Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports.

(5) Except as provided in paragraph (b)(5)(viii) of this section, each internal floating roof shall meet the specifications listed in paragraphs (b)(5)(i) through (b)(5)(vii) of this section.

(i) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents is to provide a projection below the liquid surface.

(ii) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover or lid. The cover or lid shall be equipped with a gasket.

(iii) Each penetration of the internal floating roof for the purposes of sampling shall be a sample well. Each sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(iv) Each automatic bleeder vent shall be gasketed.

(v) Each rim space vent shall be gasketed.

(vi) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(vii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(viii) If the internal floating roof does not meet any one of the specifications listed in paragraphs (b)(5)(i) through (b)(5)(vii) of this section as of December 31, 1992, the requirement for meeting those specifications does not apply until the earlier of the dates specified in paragraphs (b)(5)(viii)(A) and (b)(5)(viii)(B) of this section.

(A) The next time the storage vessel is emptied and degassed.

(B) No later than 10 years after April 22, 1994.

(6) Each cover or lid on any opening in the internal floating roof shall be closed (i.e., no visible gaps), except when the cover or lid must be open for access. Covers on each access hatch and each gauge float well shall be bolted or fastened so as to be air-tight when they are closed. Rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(c) The owner or operator who elects to use an external floating roof, as defined in §63.111 of this subpart, to comply with the requirements of paragraph (a)(1) of this section shall comply with the requirements specified in paragraphs (c)(1) through (c)(4) of this section.

(1) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge.

(i) Except as provided in paragraph (c)(1)(iv) of this section, the closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal and the upper seal is referred to as the secondary seal.

(ii) Except as provided in paragraph (c)(1)(v) of this section, the primary seal shall be either a metallic shoe seal or a liquid-mounted seal.

(iii) Except during the inspections required by §63.120(b) of this subpart, both the primary seal and the secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion.

(iv) If the external floating roof is equipped with a liquid-mounted or metallic shoe primary seal as of December 31, 1992, the requirement for a secondary seal in paragraph (c)(1)(i) of this section does not apply until the earlier of the dates specified in paragraphs (c)(1)(iv)(A) and (c)(1)(iv)(B) of this section.

(A) The next time the storage vessel is emptied and degassed.

(B) No later than 10 years after April 22, 1994.

(v) If the external floating roof is equipped with a vapor-mounted primary seal and a secondary seal as of December 31, 1992, the requirement for a liquid-mounted or metallic shoe primary seal in paragraph (c)(1)(ii) of this section does not apply until the earlier of the dates specified in paragraphs (c)(1)(v)(A) and (c)(1)(v)(B) of this section.

(A) The next time the storage vessel is emptied and degassed.

(B) No later than 10 years after April 22, 1994.

(2) Each external floating roof shall meet the specifications listed in paragraphs (c)(2)(i) through (c)(2)(xii) of this section.

(i) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in the noncontact external floating roof shall provide a projection below the liquid surface except as provided in paragraph (c)(2)(xii) of this section.

(ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal or lid which is to be maintained in a closed position (i.e., no visible gap) at all times except when the cover or lid must be open for access. Covers on each access hatch and each gauge float well shall be bolted or fastened so as to be air-tight when they are closed.

(iii) Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports.

(iv) Rim space vents are to be set to open only when the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(v) Automatic bleeder vents and rim space vents are to be gasketed.

(vi) Each roof drain that empties into the stored liquid is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(vii) Each unslotted guide pole well shall have a gasketed sliding cover or a flexible fabric sleeve seal.

(viii) Each unslotted guide pole shall have on the end of the pole a gasketed cap which is closed at all times except when gauging the liquid level or taking liquid samples.

(ix) Each slotted guide pole well shall have a gasketed sliding cover or a flexible fabric sleeve seal.

(x) Each slotted guide pole shall have a gasketed float or other device which closes off the liquid surface from the atmosphere.

(xi) Each gauge hatch/sample well shall have a gasketed cover which is closed at all times except when the hatch or well must be open for access.

(xii) If each opening in a noncontact external floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents does not provide a projection below the liquid surface as of December 31, 1992, the requirement for providing these projections below the liquid surface does not apply until the earlier of the dates specified in paragraphs (c)(2)(xii)(A) and (c)(2)(xii)(B) of this section.

(A) The next time the storage vessel is emptied and degassed.

(B) No later than 10 years after April 22, 1994.

Note:

The intent of paragraphs (c)(3) and (c)(4) of this section is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty.

(3) The external floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports during the periods specified in paragraphs (c)(3)(i) through (c)(3)(iii) of this section.

(i) During the initial fill.

(ii) After the vessel has been completely emptied and degassed.

(iii) When the vessel is completely emptied before being subsequently refilled.

(4) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.

(d) The owner or operator who elects to use an external floating roof converted to an internal floating roof (i.e., fixed roof installed above external floating roof) to comply with paragraph (a)(1) of this section shall comply with paragraphs (d)(1) and (d)(2) of this section.

(1) Comply with the requirements for internal floating roof vessels specified in paragraphs (b)(1), (2), and (3) of this section; and

(2) Comply with the requirements for deck fittings that are specified for external floating roof vessels in paragraphs (c)(2)(i) through (c)(2)(xii) of this section.

(e) The owner or operator who elects to use a closed vent system and control device, as defined in §63.111 of this subpart, to comply with the requirements of paragraph (a)(1) or (a)(2) of this section shall comply with the requirements specified in paragraphs (e)(1) through (e)(5) of this section.

(1) Except as provided in paragraph (e)(2) of this section, the control device shall be designed and operated to reduce inlet emissions of total organic HAP by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements of §63.11(b) of subpart A of this part.

(2) If the owner or operator can demonstrate that a control device installed on a storage vessel on or before December 31, 1992 is designed to reduce inlet emissions of total organic HAP by greater than or equal to 90 percent but less than 95 percent, then the control device is required to be operated to reduce inlet emissions of total organic HAP by 90 percent or greater.

(3) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of paragraph (e)(1) or (e)(2) of this section, as applicable, shall not exceed 240 hours per year.

(4) The specifications and requirements in paragraphs (e)(1) and (e)(2) of this section for control devices do not apply during periods of planned routine maintenance.

(5) The specifications and requirements in paragraphs (e)(1) and (e)(2) of this section for control devices do not apply during a control system malfunction.

(6) An owner or operator may use a combination of control devices to achieve the required reduction of total organic hazardous air pollutants specified in paragraph (e)(1) of this section. An owner or operator may use a combination of control devices installed on a storage vessel on or before December 31, 1992 to achieve the required reduction of total organic hazardous air pollutants specified in paragraph (e)(2) of this section.

(f) The owner or operator who elects to route emissions to a fuel gas system or to a process, as defined in §63.111 of this subpart, to comply with the requirements of paragraph (a)(1) or (a)(2) of this section shall comply with the requirements in paragraphs (f)(1) through (f)(3) of this section, as applicable.

(1) If emissions are routed to a fuel gas system, there is no requirement to conduct a performance test or design evaluation. If emissions are routed to a process, the organic hazardous air pollutants in the emissions shall predominantly meet one of, or a combination of, the ends specified in paragraphs (f)(1)(i) through (f)(1)(iv) of this section. The owner or operator shall comply with the compliance demonstration requirements in §63.120(f).

(i) Recycled and/or consumed in the same manner as a material that fulfills the same function in that process;

(ii) Transformed by chemical reaction into materials that are not organic hazardous air pollutants;

(iii) Incorporated into a product; and/or

(iv) Recovered.

(2) If the emissions are conveyed by a system other than hard-piping, any conveyance system operated under positive pressure shall be subject to the requirements of §63.148 of this subpart.

(3) The fuel gas system or process shall be operating at all times when organic hazardous air pollutants emissions are routed to it except as provided in §63.102(a)(1) of subpart F of this part and in paragraphs (f)(3)(i) through (f)(3)(iii) of this section. Whenever the owner or operator by-passes the fuel gas system or process, the owner or operator shall comply with the record keeping requirement in §63.123(h) of this subpart. Bypassing is permitted if the owner or operator complies with one or more of the conditions specified in paragraphs (f)(3)(i) through (f)(3)(iii) of this section.

(i) The liquid level in the storage vessel is not increased;

(ii) The emissions are routed through a closed-vent system to a control device complying with §63.119(e) of this subpart; or

(iii) The total aggregate amount of time during which the emissions by-pass the fuel gas system or process during the calendar year without being routed to a control device, for all reasons (except start-ups/shutdowns/malfunctions or product changeovers of flexible operation units and periods when the storage vessel has been emptied and degassed), does not exceed 240 hours.

§ 63.120 - Storage vessel provisions - procedures to determine compliance.

(a) To demonstrate compliance with §63.119(b) of this subpart (storage vessel equipped with a fixed roof and internal floating roof) or with §63.119(d) of this subpart (storage vessel equipped with an external floating roof converted to an internal floating roof), the owner or operator shall comply with the requirements in paragraphs (a)(1) through (a)(7) of this section.

(1) The owner or operator shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), according to the schedule specified in paragraphs (a)(2) and (a)(3) of this section.

(2) For vessels equipped with a single-seal system, the owner or operator shall perform the inspections specified in paragraphs (a)(2)(i) and (a)(2)(ii) of this section.

(i) Visually inspect the internal floating roof and the seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill, or at least once every 12 months after the compliance date specified in §63.100 of subpart F of this part.

(ii) Visually inspect the internal floating roof, the seal, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and degassed, and at least once every 10 years after the compliance date specified in §63.100 of subpart F of this part.

(3) For vessels equipped with a double-seal system as specified in §63.119(b)(3)(iii) of this subpart, the owner or operator shall perform either the inspection required in paragraph (a)(3)(i) of this section or the inspections required in both paragraphs (a)(3)(ii) and (a)(3)(iii) of this section.

(i) The owner or operator shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and

degassed and at least once every 5 years after the compliance date specified in §63.100 of subpart F of this part; or

(ii) The owner or operator shall visually inspect the internal floating roof and the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill, or at least once every 12 months after the compliance date specified in §63.100 of subpart F of this part, and

(iii) Visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes, and sleeve seals (if any) each time the vessel is emptied and degassed and at least once every 10 years after the compliance date specified in §63.100 of subpart F of this part.

(4) If during the inspections required by paragraph (a)(2)(i) or (a)(3)(ii) of this section, the internal floating roof is not resting on the surface of the liquid inside the storage vessel and is not resting on the leg supports; or there is liquid on the floating roof; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage vessel, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 calendar days. If a failure that is detected during inspections required by paragraph (a)(2)(i) or (a)(3)(ii) of this section cannot be repaired within 45 calendar days and if the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical.

(5) Except as provided in paragraph (a)(6) of this section, for all the inspections required by paragraphs (a)(2)(ii), (a)(3)(i), and (a)(3)(iii) of this section, the owner or operator shall notify the Administrator in writing at least 30 calendar days prior to the refilling of each storage vessel to afford the Administrator the opportunity to have an observer present.

(6) If the inspection required by paragraph (a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of this section is not planned and the owner or operator could not have known about the inspection 30 calendar days in advance of refilling the vessel, the owner or operator shall notify the Administrator at least 7 calendar days prior to the refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the notification including the written documentation may be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to refilling.

(7) If during the inspections required by paragraph (a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of this section, the internal floating roof has defects; or the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or the gaskets no longer close off the liquid surface from the atmosphere; or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with organic HAP.

(b) To demonstrate compliance with §63.119(c) of this subpart (storage vessel equipped with an external floating roof), the owner or operator shall comply with the requirements specified in paragraphs (b)(1) through (b)(10) of this section.

(1) Except as provided in paragraph (b)(7) of this section, the owner or operator shall determine the gap areas and maximum gap widths between the primary seal and the wall of the storage vessel, and the

secondary seal and the wall of the storage vessel according to the frequency specified in paragraphs (b)(1)(i) through (b)(1)(iii) of this section.

(i) For an external floating roof vessel equipped with primary and secondary seals, measurements of gaps between the vessel wall and the primary seal shall be performed during the hydrostatic testing of the vessel or by the compliance date specified in §63.100 of subpart F of this part, whichever occurs last, and at least once every 5 years thereafter.

(ii) For an external floating roof vessel equipped with a liquid-mounted or metallic shoe primary seal and without a secondary seal as provided for in §63.119(c)(1)(iv) of this subpart, measurements of gaps between the vessel wall and the primary seal shall be performed by the compliance date specified in §63.100 of subpart F of this part and at least once per year thereafter, until a secondary seal is installed. When a secondary seal is installed above the primary seal, measurements of gaps between the vessel wall and both the primary and secondary seals shall be performed within 90 calendar days of installation of the secondary seal, and according to the frequency specified in paragraphs (b)(1)(i) and (b)(1)(iii) of this section thereafter.

(iii) For an external floating roof vessel equipped with primary and secondary seals, measurements of gaps between the vessel wall and the secondary seal shall be performed by the compliance date specified in §63.100 of subpart F of this part and at least once per year thereafter.

(iv) If any storage vessel ceases to store organic HAP for a period of 1 year or more, or if the maximum true vapor pressure of the total organic HAP's in the stored liquid falls below the values defining Group 1 storage vessels specified in table 5 or table 6 of this subpart for a period of 1 year or more, measurements of gaps between the vessel wall and the primary seal, and gaps between the vessel wall and the secondary seal shall be performed within 90 calendar days of the vessel being refilled with organic HAP.

(2) Except as provided in paragraph (b)(7) of this section, the owner or operator shall determine gap widths and gap areas in the primary and secondary seals (seal gaps) individually by the procedures described in paragraphs (b)(2)(i) through (b)(2)(iii) of this section.

(i) Seal gaps, if any, shall be measured at one or more floating roof levels when the roof is not resting on the roof leg supports.

(ii) Seal gaps, if any, shall be measured around the entire circumference of the vessel in each place where an 0.32 centimeter (1/8 inch) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the storage vessel. The circumferential distance of each such location shall also be measured.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the vessel wall to the seal and multiplying each such width by its respective circumferential distance.

(3) The owner or operator shall add the gap surface area of each gap location for the primary seal and divide the sum by the nominal diameter of the vessel. The accumulated area of gaps between the vessel wall and the primary seal shall not exceed 212 square centimeters per meter of vessel diameter and the width of any portion of any gap shall not exceed 3.81 centimeters.

(4) The owner or operator shall add the gap surface area of each gap location for the secondary seal and divide the sum by the nominal diameter of the vessel. The accumulated area of gaps between the vessel wall and the secondary seal shall not exceed 21.2 square centimeters per meter of vessel diameter and the width of any portion of any gap shall not exceed 1.27 centimeters. These seal gap requirements may be exceeded during the measurement of primary seal gaps as required by paragraph (b)(1)(i) and (b)(1)(ii) of this section.

(5) The primary seal shall meet the additional requirements specified in paragraphs (b)(5)(i) and (b)(5)(ii) of this section.

(i) Where a metallic shoe seal is in use, one end of the metallic shoe shall extend into the stored liquid and the other end shall extend a minimum vertical distance of 61 centimeters above the stored liquid surface.

(ii) There shall be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(6) The secondary seal shall meet the additional requirements specified in paragraphs (b)(6)(i) and (b)(6)(ii) of this section.

(i) The secondary seal shall be installed above the primary seal so that it completely covers the space between the roof edge and the vessel wall except as provided in paragraph (b)(4) of this section.

(ii) There shall be no holes, tears, or other openings in the seal or seal fabric.

(7) If the owner or operator determines that it is unsafe to perform the seal gap measurements required in paragraphs (b)(1) and (b)(2) of this section or to inspect the vessel to determine compliance with paragraphs (b)(5) and (b)(6) of this section because the floating roof appears to be structurally unsound and poses an imminent or potential danger to inspecting personnel, the owner or operator shall comply with the requirements in either paragraph (b)(7)(i) or (b)(7)(ii) of this section.

(i) The owner or operator shall measure the seal gaps or inspect the storage vessel no later than 30 calendar days after the determination that the roof is unsafe, or

(ii) The owner or operator shall empty and remove the storage vessel from service no later than 45 calendar days after determining that the roof is unsafe. If the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include an explanation of why it was unsafe to perform the inspection or seal gap measurement, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the vessel will be emptied as soon as practical.

(8) The owner or operator shall repair conditions that do not meet requirements listed in paragraphs (b)(3), (b)(4), (b)(5), and (b)(6) of this section (i.e., failures) no later than 45 calendar days after identification, or shall empty and remove the storage vessel from service no later than 45 calendar days after identification. If during seal gap measurements required in paragraph (b)(1) and (b)(2) of this section or during inspections necessary to determine compliance with paragraphs (b)(5) and (b)(6) of this section a failure is detected that cannot be repaired within 45 calendar days and if the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include a

description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical.

(9) The owner or operator shall notify the Administrator in writing 30 calendar days in advance of any gap measurements required by paragraph (b)(1) or (b)(2) of this section to afford the Administrator the opportunity to have an observer present.

(10) The owner or operator shall visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects; the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or the gaskets no longer close off the liquid surface from the atmosphere; or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with organic HAP.

(ii) Except as provided in paragraph (b)(10)(iii) of this section, for all the inspections required by paragraph (b)(10) of this section, the owner or operator shall notify the Administrator in writing at least 30 calendar days prior to filling or refilling of each storage vessel with organic HAP to afford the Administrator the opportunity to inspect the storage vessel prior to refilling.

(iii) If the inspection required by paragraph (b)(10) of this section is not planned and the owner or operator could not have known about the inspection 30 calendar days in advance of refilling the vessel with organic HAP, the owner or operator shall notify the Administrator at least 7 calendar days prior to refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to the refilling.

(c) To demonstrate compliance with §63.119(d) of this subpart (storage vessel equipped with an external floating roof converted to an internal floating roof), the owner or operator shall comply with the requirements of paragraph (a) of this section.

(d) To demonstrate compliance with §63.119(e) of this subpart (storage vessel equipped with a closed vent system and control device) using a control device other than a flare, the owner or operator shall comply with the requirements in paragraphs (d)(1) through (d)(7) of this section, except as provided in paragraph (d)(8) of this section.

(1) The owner or operator shall either prepare a design evaluation, which includes the information specified in paragraph (d)(1)(i) of this section, or submit the results of a performance test as described in paragraph (d)(1)(ii) of this section.

(i) The design evaluation shall include documentation demonstrating that the control device being used achieves the required control efficiency during reasonably expected maximum filling rate. This documentation is to include a description of the gas stream which enters the control device, including flow and organic HAP content under varying liquid level conditions, and the information specified in paragraphs (d)(1)(i)(A) through (d)(1)(i)(E) of this section, as applicable.

(A) If the control device receives vapors, gases or liquids, other than fuels, from emission points other than storage vessels subject to this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids, other than fuels, received by the control device.

(B) If an enclosed combustion device with a minimum residence time of 0.5 seconds and a minimum temperature of 760 °C is used to meet the emission reduction requirement specified in §63.119 (e)(1) or (e)(2), as applicable, documentation that those conditions exist is sufficient to meet the requirements of paragraph (d)(1)(i) of this section.

(C) Except as provided in paragraph (d)(1)(i)(B) of this section, for thermal incinerators, the design evaluation shall include the autoignition temperature of the organic HAP, the flow rate of the organic HAP emission stream, the combustion temperature, and the residence time at the combustion temperature.

(D) For carbon adsorbers, the design evaluation shall include the affinity of the organic HAP vapors for carbon, the amount of carbon in each bed, the number of beds, the humidity of the feed gases, the temperature of the feed gases, the flow rate of the organic HAP emission stream, the desorption schedule, the regeneration stream pressure or temperature, and the flow rate of the regeneration stream. For vacuum desorption, pressure drop shall be included.

(E) For condensers, the design evaluation shall include the final temperature of the organic HAP vapors, the type of condenser, and the design flow rate of the organic HAP emission stream.

(ii) If the control device used to comply with §63.119(e) of this subpart is also used to comply with §63.113(a)(2), §63.126(b)(1), or §63.139(c) of this subpart, the performance test required by §63.116(c), §§63.128(a), or §63.139(d)(1) of this subpart is acceptable to demonstrate compliance with §63.119(e) of this subpart. The owner or operator is not required to prepare a design evaluation for the control device as described in paragraph (d)(1)(i) of this section, if the performance tests meets the criteria specified in paragraphs (d)(1)(ii)(A) and (d)(1)(ii)(B) of this section.

(A) The performance test demonstrates that the control device achieves greater than or equal to the required control efficiency specified in §63.119 (e)(1) or (e)(2) of this subpart, as applicable; and

(B) The performance test is submitted as part of the Notification of Compliance Status required by §63.151(b) of this subpart.

(2) The owner or operator shall submit, as part of the Notification of Compliance Status required by §63.151 (b) of this subpart, a monitoring plan containing the information specified in paragraph (d)(2)(i) of this section and in either (d)(2)(ii) or (d)(2)(iii) of this section.

(i) A description of the parameter or parameters to be monitored to ensure that the control device is being properly operated and maintained, an explanation of the criteria used for selection of that parameter (or parameters), and the frequency with which monitoring will be performed (e.g., when the liquid level in the storage vessel is being raised); and either

(ii) The documentation specified in paragraph (d)(1)(i) of this section, if the owner or operator elects to prepare a design evaluation; or

(iii) The information specified in paragraph (d)(2)(iii) (A) and (B) of this section if the owner or operator elects to submit the results of a performance test.

(A) Identification of the storage vessel and control device for which the performance test will be submitted, and

(B) Identification of the emission point(s) that share the control device with the storage vessel and for which the performance test will be conducted.

(3) The owner or operator shall submit, as part of the Notification of Compliance Status required by §63.152(b) of this subpart, the information specified in paragraphs (d)(3)(i) and, if applicable, (d)(3)(ii) of this section.

(i) The operating range for each monitoring parameter identified in the monitoring plan. The specified operating range shall represent the conditions for which the control device is being properly operated and maintained.

(ii) Results of the performance test described in paragraph (d)(1)(ii) of this section.

(4) The owner or operator shall demonstrate compliance with the requirements of §63.119(e)(3) of this subpart (planned routine maintenance of a control device, during which the control device does not meet the specifications of §63.119 (e)(1) or (e)(2) of this subpart, as applicable, shall not exceed 240 hours per year) by including in each Periodic Report required by §63.152(c) of this subpart the information specified in §63.122(g)(1) of this subpart.

(5) The owner or operator shall monitor the parameters specified in the Notification of Compliance Status required in §63.152(b) of this subpart or in the operating permit and shall operate and maintain the control device such that the monitored parameters remain within the ranges specified in the Notification of Compliance Status.

(6) Except as provided in paragraph (d)(7) of this section, each closed vent system shall be inspected as specified in §63.148 of this subpart. The initial and annual inspections required by §63.148(b) of this subpart shall be done during filling of the storage vessel.

(7) For any fixed roof tank and closed vent system that are operated and maintained under negative pressure, the owner or operator is not required to comply with the requirements specified in §63.148 of this subpart.

(8) A design evaluation or performance test is not required, if the owner or operator uses a combustion device meeting the criteria in paragraph (d)(8)(i), (d)(8)(ii), (d)(8)(iii), or (d)(8)(iv) of this section.

(i) A boiler or process heater with a design heat input capacity of 44 megawatts or greater.

(ii) A boiler or process heater burning hazardous waste for which the owner or operator:

(A) Has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H, or

(B) Has certified compliance with the interim status requirements of 40 CFR part 266, subpart H.

(iii) A hazardous waste incinerator for which the owner or operator has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 264, subpart O or has certified compliance with the interim status requirements of 40 CFR part 265, subpart O.

(iv) A boiler or process heater into which the vent stream is introduced with the primary fuel.

(e) To demonstrate compliance with §63.119(e) of this subpart (storage vessel equipped with a closed vent system and control device) using a flare, the owner or operator shall comply with the requirements in paragraphs (e)(1) through (e)(6) of this section.

(1) The owner or operator shall perform the compliance determination specified in §63.11(b) of subpart A of this part.

(2) The owner or operator shall submit, as part of the Notification of Compliance Status required by §63.152(b) of this subpart, the information specified in paragraphs (e)(2)(i) through (e)(2)(iii) of this section.

(i) Flare design (i.e., steam-assisted, air-assisted, or non-assisted);

(ii) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by paragraph (e)(1) of this section; and

(iii) All periods during the compliance determination when the pilot flame is absent.

(3) The owner or operator shall demonstrate compliance with the requirements of §63.119(e)(3) of this subpart (planned routine maintenance of a flare, during which the flare does not meet the specifications of §63.119(e)(1) of this subpart, shall not exceed 240 hours per year) by including in each Periodic Report required by §63.152(c) of this subpart the information specified in §63.122(g)(1) of this subpart.

(4) The owner or operator shall continue to meet the general control device requirements specified in §63.11(b) of subpart A of this part.

(5) Except as provided in paragraph (e)(6) of this section, each closed vent system shall be inspected as specified in §63.148 of this subpart. The inspections required to be performed in accordance with §63.148(c) of this subpart shall be done during filling of the storage vessel.

(6) For any fixed roof tank and closed vent system that is operated and maintained under negative pressure, the owner or operator is not required to comply with the requirements specified in §63.148 of this subpart.

(f) To demonstrate compliance with §63.119(f) of this subpart (storage vessel routed to a process), the owner or operator shall prepare a design evaluation (or engineering assessment) that demonstrates the extent to which one or more of the ends specified in §63.119(f)(1)(i) through (f)(1)(iv) are being met. The owner or operator shall submit the design evaluation as part of the Notification of Compliance Status required by §63.152(b) of this subpart.

§ 63.121 - Storage vessel provisions - alternative means of emission limitation.

(a) Determination of equivalence to the reduction in emissions achieved by the requirements of §63.119 (b), (c), or (d) of this subpart will be evaluated according to §63.102(b) of subpart F of this part.

(b) The determination of equivalence referred to in paragraph (a) of this section will be based on the application to the Administrator which shall include the information specified in either paragraph (b)(1) or (b)(2) of this section.

(1) Actual emissions tests that use full-size or scale-model storage vessels that accurately collect and measure all organic HAP emissions from a given control technique, and that accurately simulate wind and account for other emission variables such as temperature and barometric pressure, or

(2) An engineering analysis that the Administrator determines is an accurate method of determining equivalence.

12. 40 CFR Part 63, Subpart CC - National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries

[The following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart CC: B028, P002, P006, P007, P014, P015, P027, P040, P041, T009, T010, T011, T017, T018, T019, T020, T021, T022, T023, T024, T025, T026, T027, T028, T029, T030, T031, T032, T033, T034, T035, T036, T037, T038, T039, T040, T041, T042, T043, T044, T045, T046, T047, T048, T049, T053, T054, T055, T057, T058, T059, T060, T061, T062, T064, T065, T066, T067, T068, T070, T071, T072, T073, T074, T075, T076, T078, T080, T081, T083, T084, T085, T086, T087, T088, T090, T091, T092, T093, T097, T100, T112, T121, T123, T161, T164, T177, T178, T182, T190, T191, T192, T195, T196, T197, T198, T200, T201, T202, T203, T204, T205, T206, T207, T208, T209, T210, T211, T212, T213, T214, T217, T218, T219, T220, and T222.]

§ 63.640 Applicability and designation of affected source.

(a) This subpart applies to petroleum refining process units and to related emission points that are specified in paragraphs (c)(5) through (c)(7) of this section that are located at a plant site that meet the criteria in paragraphs (a)(1) and (a)(2) of this section;

(1) Are located at a plant site that is a major source as defined in section 112(a) of the Clean Air Act; and

(2) Emit or have equipment containing or contacting one or more of the hazardous air pollutants listed in table 1 of this subpart.

(b)(1) If the predominant use of the flexible operation unit, as described in paragraphs (b)(1)(i) and (ii) of this section, is as a petroleum refining process unit, as defined in §63.641, then the flexible operation unit shall be subject to the provisions of this subpart.

(i) Except as provided in paragraph (b)(1)(ii) of this section, the predominant use of the flexible operation unit shall be the use representing the greatest annual operating time.

(ii) If the flexible operation unit is used as a petroleum refining process unit and for another purpose equally based on operating time, then the predominant use of the flexible operation unit shall be the use that produces the greatest annual production on a mass basis.

(2) The determination of applicability of this subpart to petroleum refining process units that are designed and operated as flexible operation units shall be reported as specified in §63.654(h)(6)(i).

(c) For the purpose of this subpart, the affected source shall comprise all emission points, in combination, listed in paragraphs (c)(1) through (c)(7) of this section that are located at a single refinery plant site.

(1) All miscellaneous process vents from petroleum refining process units meeting the criteria in paragraph (a) of this section;

(2) All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section;

(3) All wastewater streams and treatment operations associated with petroleum refining process units meeting the criteria in paragraph (a) of this section;

(4) All equipment leaks from petroleum refining process units meeting the criteria in paragraph (a) of this section;

(5) All gasoline loading racks classified under Standard Industrial Classification code 2911 meeting the criteria in paragraph (a) of this section;

(6) All marine vessel loading operations located at a petroleum refinery meeting the criteria in paragraph (a) of this section and the applicability criteria of subpart Y, §63.560; and

(7) All storage vessels and equipment leaks associated with a bulk gasoline terminal or pipeline breakout station classified under Standard Industrial Classification code 2911 located within a contiguous area and under common control with a refinery meeting the criteria in paragraph (a) of this section.

(d) The affected source subject to this subpart does not include the emission points listed in paragraphs (d)(1) through (d)(5) of this section.

(1) Stormwater from segregated stormwater sewers;

(2) Spills;

(3) Any pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, or instrumentation system that is intended to operate in organic hazardous air pollutant service, as defined in §63.641 of this subpart, for less than 300 hours during the calendar year;

(4) Catalytic cracking unit and catalytic reformer catalyst regeneration vents, and sulfur plant vents; and

(5) Emission points routed to a fuel gas system, as defined in §63.641 of this subpart. No testing, monitoring, record keeping, or reporting is required for refinery fuel gas systems or emission points routed to refinery fuel gas systems.

(e) The owner or operator shall follow the procedures specified in paragraphs (e)(1) and (e)(2) of this section to determine whether a storage vessel is part of a source to which this subpart applies.

(1) Where a storage vessel is used exclusively by a process unit, the storage vessel shall be considered part of that process unit.

(i) If the process unit is a petroleum refining process unit subject to this subpart, then the storage vessel is part of the affected source to which this subpart applies.

(ii) If the process unit is not subject to this subpart, then the storage vessel is not part of the affected source to which this subpart applies.

(2) If a storage vessel is not dedicated to a single process unit, then the applicability of this subpart shall be determined according to the provisions in paragraphs (e)(2)(i) through (e)(2)(iii) of this section.

(i) If a storage vessel is shared among process units and one of the process units has the predominant use, as determined by paragraphs (e)(2)(i)(A) and (e)(2)(i)(B) of this section, then the storage vessel is part of that process unit.

(A) If the greatest input on a volume basis into the storage vessel is from a process unit that is located on the same plant site, then that process unit has the predominant use.

(B) If the greatest input on a volume basis into the storage vessel is provided from a process unit that is not located on the same plant site, then the predominant use shall be the process unit that receives the greatest amount of material on a volume basis from the storage vessel at the same plant site.

(ii) If a storage vessel is shared among process units so that there is no single predominant use, and at least one of those process units is a petroleum refining process unit subject to this subpart, the storage vessel shall be considered to be part of the petroleum refining process unit that is subject to this subpart. If more than one petroleum refining process unit is subject to this subpart, the owner or operator may assign the storage vessel to any of the petroleum refining process units subject to this subpart.

(iii) If the predominant use of a storage vessel varies from year to year, then the applicability of this subpart shall be determined based on the utilization of that storage vessel during the year preceding promulgation of this subpart. This determination shall be reported as specified in §63.654(h)(6)(ii) of this subpart.

(f) The owner or operator shall follow the procedures specified in paragraphs (f)(1) through (f)(5) of this section to determine whether a miscellaneous process vent from a distillation unit is part of a source to which this subpart applies.

(1) If the greatest input to the distillation unit is from a process unit located on the same plant site, then the distillation unit shall be assigned to that process unit.

(2) If the greatest input to the distillation unit is provided from a process unit that is not located on the same plant site, then the distillation unit shall be assigned to the process unit located at the same plant site that receives the greatest amount of material from the distillation unit.

(3) If a distillation unit is shared among process units so that there is no single predominant use, as described in paragraphs (f)(1) and (f)(2) of this section, and at least one of those process units is a petroleum refining process unit subject to this subpart, the distillation unit shall be assigned to the petroleum refining process unit that is subject to this subpart. If more than one petroleum refining process unit is subject to this subpart, the owner or operator may assign the distillation unit to any of the petroleum refining process units subject to this rule.

(4) If the process unit to which the distillation unit is assigned is a petroleum refining process unit subject to this subpart and the vent stream contains greater than 20 parts per million by volume total organic hazardous air pollutants, then the vent from the distillation unit is considered a miscellaneous process vent (as defined in §63.641 of this subpart) and is part of the source to which this subpart applies.

(5) If the predominant use of a distillation unit varies from year to year, then the applicability of this subpart shall be determined based on the utilization of that distillation unit during the year preceding promulgation of this subpart. This determination shall be reported as specified in §63.654(h)(6)(iii).

(g) The provisions of this subpart do not apply to the processes specified in paragraphs (g)(1) through (g)(7) of this section.

(1) Research and development facilities, regardless of whether the facilities are located at the same plant site as a petroleum refining process unit that is subject to the provisions of this subpart;

(2) Equipment that does not contain any of the hazardous air pollutants listed in table 1 of this subpart that is located within a petroleum refining process unit that is subject to this subpart;

(3) Units processing natural gas liquids;

(4) Units that are used specifically for recycling discarded oil;

(5) Shale oil extraction units;

(6) Ethylene processes; and

(7) Process units and emission points subject to subparts F, G, H, and I of this part.

(h) Except as provided in paragraphs (k), (l), or (m) of this section, sources subject to this subpart are required to achieve compliance on or before the dates specified in paragraphs (h)(1) through (h)(4) of this section.

(1) New sources that commence construction or reconstruction after July 14, 1994 shall be in compliance with this subpart upon initial startup or the date of promulgation of this subpart, whichever is later, as provided in §63.6(b) of subpart A of this part.

(2) Except as provided in paragraphs (h)(3) through (h)(5) of this section, existing sources shall be in compliance with this subpart no later than August 18, 1998, except as provided in §63.6(c) of subpart A of this part, or unless an extension has been granted by the Administrator as provided in §63.6(i) of subpart A of this part.

(3) **[Not Applicable]** Marine tank vessels at existing sources shall be in compliance with this subpart no later than August 18, 1999 unless the vessels are included in an emissions average to generate emission

credits. Marine tank vessels used to generate credits in an emissions average shall be in compliance with this subpart no later than August 18, 1998 unless an extension has been granted by the Administrator as provided in §63.6(i).

(4) Existing Group 1 floating roof storage vessels shall be in compliance with §§63.646 at the first degassing and cleaning activity after August 18, 1998, or within 10 years after promulgation of the rule, whichever is first.

(5) An owner or operator may elect to comply with the provisions of §63.648 (c) through (i) as an alternative to the provisions of §63.648 (a) and (b). In such cases, the owner or operator shall comply no later than the dates specified in paragraphs (h)(5)(i) through (h)(5)(iii) of this section.

(i) Phase I (see table 2 of this subpart), beginning on August 18, 1998;

(ii) Phase II (see table 2 of this subpart), beginning no later than August 18, 1999; and

(iii) Phase III (see table 2 of this subpart), beginning no later than February 18, 2001.

(i) If an additional petroleum refining process unit is added to a plant site that is a major source as defined in section 112(a) of the Clean Air Act, the addition shall be subject to the requirements for a new source if it meets the criteria specified in paragraphs (i)(1) through (i)(3) of this section:

(1) It is an addition that meets the definition of construction in §63.2 of subpart A of this part;

(2) Such construction commenced after July 14, 1994; and

(3) The addition has the potential to emit 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants.

(j) If any change is made to a petroleum refining process unit subject to this subpart, the change shall be subject to the requirements for a new source if it meets the criteria specified in paragraphs (j)(1) and (j)(2) of this section:

(1) It is a change that meets the definition of reconstruction in §63.2 of subpart A of this part; and

(2) Such reconstruction commenced after July 14, 1994.

(k) If an additional petroleum refining process unit is added to a plant site or a change is made to a petroleum refining process unit and the addition or change is determined to be subject to the new source requirements according to paragraphs (i) or (j) of this section it must comply with the requirements specified in paragraphs (k)(1) and (k)(2) of this section:

(1) The reconstructed source, addition, or change shall be in compliance with the new source requirements upon initial startup of the reconstructed source or by the date of promulgation of this subpart, whichever is later; and

(2) The owner or operator of the reconstructed source, addition, or change shall comply with the reporting and record keeping requirements that are applicable to new sources. The applicable reports include, but are not limited to:

(i) The application for approval of construction or reconstruction shall be submitted as soon as practical before the construction or reconstruction is planned to commence (but it need not be sooner than 90 days after the date of promulgation of this subpart);

(ii) The Notification of Compliance Status report as required by §63.654(f) for a new source, addition, or change;

(iii) Periodic Reports and Other Reports as required by §63.654 (g) and (h);

(iv) Reports and notifications required by §60.487 of subpart VV of part 60 or §63.182 of subpart H of this part. The requirements for subpart H are summarized in table 3 of this subpart;

(v) Reports required by 40 CFR 61.357 of subpart FF;

(vi) Reports and notifications required by §63.428 (b), (c), (g)(1), and (h)(1) through (h)(3) of subpart R. These requirements are summarized in table 4 of this subpart; and

(vii) Reports and notifications required by §63.565 and 63.567 of subpart Y of this part. These requirements are summarized in table 5 of this subpart.

(l) If an additional petroleum refining process unit is added to a plant site or if a miscellaneous process vent, storage vessel, gasoline loading rack, or marine tank vessel loading operation that meets the criteria in paragraphs (c)(1) through (c)(7) of this section is added to an existing petroleum refinery or if another deliberate operational process change creating an additional Group 1 emission point(s) (as defined in §63.641) is made to an existing petroleum refining process unit, and if the addition or process change is not subject to the new source requirements as determined according to paragraphs (i) or (j) of this section, the requirements in paragraphs (l)(1) through (l)(3) of this section shall apply. Examples of process changes include, but are not limited to, changes in production capacity, or feed or raw material where the change requires construction or physical alteration of the existing equipment or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment.

For purposes of this paragraph and paragraph (m) of this section, process changes do not include: Process upsets, unintentional temporary process changes, and changes that are within the equipment configuration and operating conditions documented in the Notification of Compliance Status report required by §63.654(f).

(1) The added emission point(s) and any emission point(s) within the added or changed petroleum refining process unit are subject to the requirements for an existing source.

(2) The added emission point(s) and any emission point(s) within the added or changed petroleum refining process unit shall be in compliance with this subpart by the dates specified in paragraphs (l)(2)(i) or (l)(2)(ii) of this section, as applicable.

(i) If a petroleum refining process unit is added to a plant site or an emission point(s) is added to any existing petroleum refining process unit, the added emission point(s) shall be in compliance upon initial startup of any added petroleum refining process unit or emission point(s) or by 3 years after the date of promulgation of this subpart, whichever is later.

(ii) If a deliberate operational process change to an existing petroleum refining process unit causes a Group 2 emission point to become a Group 1 emission point (as defined in §63.641), the owner or

operator shall be in compliance upon initial startup or by 3 years after the date of promulgation of this subpart, whichever is later, unless the owner or operator demonstrates to the Administrator that achieving compliance will take longer than making the change. If this demonstration is made to the Administrator's satisfaction, the owner or operator shall follow the procedures in paragraphs (m)(1) through (m)(3) of this section to establish a compliance date.

(3) The owner or operator of a petroleum refining process unit or of a storage vessel, miscellaneous process vent, wastewater stream, gasoline loading rack, or marine tank vessel loading operation meeting the criteria in paragraphs (c)(1) through (c)(7) of this section that is added to a plant site and is subject to the requirements for existing sources shall comply with the reporting and record keeping requirements that are applicable to existing sources including, but not limited to, the reports listed in paragraphs (l)(3)(i) through (l)(3)(vii) of this section. A process change to an existing petroleum refining process unit shall be subject to the reporting requirements for existing sources including, but not limited to, the reports listed in paragraphs (l)(3)(i) through (l)(3)(vii) of this section. The applicable reports include, but are not limited to:

(i) The Notification of Compliance Status report as required by §63.654(f) for the emission points that were added or changed;

(ii) Periodic Reports and other reports as required by §63.654 (g) and (h);

(iii) Reports and notifications required by sections of subpart A of this part that are applicable to this subpart, as identified in table 6 of this subpart.

(iv) Reports and notifications required by §63.182, or 40 CFR 60.487. The requirements of subpart H of this part are summarized in table 3 of this subpart;

(v) Reports required by §61.357 of subpart FF;

(vi) Reports and notifications required by §63.428 (b), (c), (g)(1), and (h)(1) through (h)(3) of subpart R of this part. These requirements are summarized in table 4 of this subpart; and

(vii) Reports and notifications required by §63.567 of subpart Y of this part. These requirements are summarized in table 5 of this subpart.

(4) If pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, or instrumentation systems are added to an existing source, they are subject to the equipment leak standards for existing sources in §63.648. A notification of compliance status report shall not be required for such added equipment.

(m) If a change that does not meet the criteria in paragraph (l) of this section is made to a petroleum refining process unit subject to this subpart, and the change causes a Group 2 emission point to become a Group 1 emission point (as defined in §63.641), then the owner or operator shall comply with the requirements of this subpart for existing sources for the Group 1 emission point as expeditiously as practicable, but in no event later than 3 years after the emission point becomes Group 1.

(1) The owner or operator shall submit to the Administrator for approval a compliance schedule, along with a justification for the schedule.

(2) The compliance schedule shall be submitted within 180 days after the change is made, unless the compliance schedule has been previously submitted to the permitting authority. If it is not possible to determine until after the change is implemented whether the emission point has become Group 1, the compliance schedule shall be submitted within 180 days of the date when the affect of the change is known to the source. The compliance schedule may be submitted in the next Periodic Report if the change is made after the date the Notification of Compliance Status report is due.

(3) The Administrator shall approve or deny the compliance schedule or request changes within 120 calendar days of receipt of the compliance schedule and justification. Approval is automatic if not received from the Administrator within 120 calendar days of receipt.

(n) Overlap of subpart CC with other regulations for storage vessels.

(1) After the compliance dates specified in paragraph (h) of this section, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of this section.

(2) After the compliance dates specified in paragraph (h) of this section a Group 1 storage vessel that is part of a new source and is subject to 40 CFR part 60, subpart Kb is required to comply only with this subpart.

(3) After the compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is part of a new source and is subject to the control requirements in §60.112b of 40 CFR part 60, subpart Kb is required to comply only with 40 CFR part 60, subpart Kb except as provided in paragraph (n)(8) of this section.

(4) After the compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is part of a new source and is subject to 40 CFR 60.110b, but is not required to apply controls by 40 CFR 60.110b or 60.112b is required to comply only with this subpart.

(5) After the compliance dates specified in paragraph (h) of this section a Group 1 storage vessel that is also subject to the provisions of 40 CFR part 60, subparts K or Ka is required to only comply with the provisions of this subpart.

(6) After compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is subject to the control requirements of 40 CFR part 60, subparts K or Ka is required to comply only with the provisions of 40 CFR part 60, subparts K or Ka except as provided for in paragraph (n)(9) of this section.

(7) After the compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is subject to 40 CFR part 60, subparts K or Ka, but not to the control requirements of 40 CFR part 60, subparts K or Ka, is required to comply only with this subpart.

(8) Storage vessels described by paragraphs (n)(1) and (n)(3) of this section are to comply with 40 CFR part 60, subpart Kb except as provided for in paragraphs (n)(8)(i) through (n)(8)(vi) of this section.

(i) Storage vessels that are to comply with §60.112b(a)(2) of subpart Kb are exempt from the secondary seal requirements of §§60.112b(a)(2)(i)(B) during the gap measurements for the primary seal required by §60.113b(b) of subpart Kb.

(ii) If the owner or operator determines that it is unsafe to perform the seal gap measurements required in §60.113b(b) of subpart Kb or to inspect the vessel to determine compliance with §60.113b(a) of subpart Kb because the roof appears to be structurally unsound and poses an imminent danger to inspecting personnel, the owner or operator shall comply with the requirements in either §63.120(b)(7)(i) or §63.120(b)(7)(ii) of subpart G.

(iii) If a failure is detected during the inspections required by §60.113b(a)(2) or during the seal gap measurements required by §60.113b(b)(1), and the vessel cannot be repaired within 45 days and the vessel cannot be emptied within 45 days, the owner or operator may utilize up to two extensions of up to 30 additional calendar days each. The owner or operator is not required to provide a request for the extension to the Administrator.

(iv) If an extension is utilized in accordance with paragraph (n)(8)(iii) of this section, the owner or operator shall, in the next periodic report, identify the vessel, provide the information listed in §60.113b(a)(2) or §60.113b(b)(4)(iii), and describe the nature and date of the repair made or provide the date the storage vessel was emptied.

(v) Owners and operators of storage vessels complying with subpart Kb of part 60 may submit the inspection reports required by §60.115b(a)(3), (a)(4), and (b)(4) of subpart Kb as part of the periodic reports required by this subpart, rather than within the 30-day period specified in §60.115b(a)(3), (a)(4), and (b)(4) of subpart Kb.

(vi) The reports of rim seal inspections specified in §60.115b(b)(2) are not required if none of the measured gaps or calculated gap areas exceed the limitations specified in §60.113b(b)(4). Documentation of the inspections shall be recorded as specified in §60.115b(b)(3).

(9) Storage vessels described by paragraph (n)(6) of this section that are to comply with 40 CFR part 60, subpart Ka, are to comply with only subpart Ka except as provided for in paragraphs (n)(9)(i) through (n)(9)(iv) of this section.

(i) If the owner or operator determines that it is unsafe to perform the seal gap measurements required in §60.113a(a)(1) of subpart Ka because the floating roof appears to be structurally unsound and poses an imminent danger to inspecting personnel, the owner or operator shall comply with the requirements in either §63.120(b)(7)(i) or §63.120(b)(7)(ii) of subpart G.

(ii) If a failure is detected during the seal gap measurements required by §60.113a(a)(1) of subpart Ka, and the vessel cannot be repaired within 45 days and the vessel cannot be emptied within 45 days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each.

(iii) If an extension is utilized in accordance with paragraph (n)(9)(ii) of this section, the owner or operator shall, in the next periodic report, identify the vessel, describe the nature and date of the repair made or provide the date the storage vessel was emptied. The owner or operator shall also provide documentation of the decision to utilize an extension including a description of the failure,

documentation that alternate storage capacity is unavailable, and a schedule of actions that will ensure that the control equipment will be repaired or the vessel emptied as soon as possible.

(iv) Owners and operators of storage vessels complying with subpart Ka of part 60 may submit the inspection reports required by §60.113a(a)(1)(i)(E) of subpart Ka as part of the periodic reports required by this subpart, rather than within the 60-day period specified in §60.113a(a)(1)(i)(E) of subpart Ka.

(o) Overlap of this subpart CC with other regulations for wastewater.

(1) After the compliance dates specified in paragraph (h) of this section a Group 1 wastewater stream managed in a piece of equipment that is also subject to the provisions of 40 CFR part 60, subpart QQQ is required to comply only with this subpart.

(2) After the compliance dates specified in paragraph (h) of this section a Group 1 or Group 2 wastewater stream that is conveyed, stored, or treated in a wastewater stream management unit that also receives streams subject to the provisions of §63.133 through 63.147 of subpart G wastewater provisions of this part shall comply as specified in paragraph (o)(2)(i) or (o)(2)(ii) of this section. Compliance with the provisions of paragraph (o)(2) of this section shall constitute compliance with the requirements of this subpart for that wastewater stream.

(i) Comply with paragraphs (o)(2)(i)(A) through (o)(2)(i)(C) of this section.

(A) The provisions in §63.133 through 63.140 of subpart G for all equipment used in the storage and conveyance of the Group 1 or Group 2 wastewater stream.

(B) The provisions in both 40 CFR Part 61, Subpart FF and in §63.138 and 63.139 of subpart G for the treatment and control of the Group 1 or Group 2 wastewater stream.

(C) The provisions in §63.143 through 63.148 of subpart G for monitoring and inspections of equipment and for record keeping and reporting requirements. The owner or operator is not required to comply with the monitoring, record keeping, and reporting requirements associated with the treatment and control requirements in 40 CFR Part 61, Subpart FF, §61.355 through 61.357.

(ii) Comply with paragraphs (o)(2)(ii)(A) and (o)(2)(ii)(B) of this section.

(A) Comply with the provisions of §63.133 through 63.148 and §63.151 and 63.152 of subpart G.

(B) For any Group 2 wastewater stream or organic stream whose benzene emissions are subject to control through the use of one or more treatment processes or waste management units under the provisions of 40 CFR Part 61, Subpart FF on or after December 31, 1992, comply with the requirements of §63.133 through §63.147 of subpart G for Group 1 wastewater streams.

(p) Overlap of subpart CC with other regulations for equipment leaks. After the compliance dates specified in paragraph (h) of this section equipment leaks that are also subject to the provisions of 40 CFR parts 60 and 61 are required to comply only with the provisions specified in this subpart.

(q) For overlap of subpart CC with local or State regulations, the permitting authority for the affected source may allow consolidation of the monitoring, record keeping, and reporting requirements under this subpart with the monitoring, record keeping, and reporting requirements under other applicable requirements in 40 CFR parts 60, 61, or 63, and in any 40 CFR part 52 approved State implementation

plan provided the implementation plan allows for approval of alternative monitoring, reporting, or record keeping requirements and provided that the permit contains an equivalent degree of compliance and control.

(r) **[Not Applicable]** Overlap of subpart CC with other regulations for gasoline loading racks. After the compliance dates specified in paragraph (h) of this section, a Group 1 gasoline loading rack that is part of a source subject to subpart CC and also is subject to the provisions of 40 CFR part 60, subpart XX is required to comply only with this subpart.

§ 63.641 Definitions.

All terms used in this subpart shall have the meaning given them in the Clean Air Act, subpart A of this part, and in this section. If the same term is defined in subpart A and in this section, it shall have the meaning given in this section for purposes of this subpart.

Affected source means the collection of emission points to which this subpart applies as determined by the criteria in §63.640.

Aliphatic means open-chained structure consisting of paraffin, olefin and acetylene hydrocarbons and derivatives.

Annual average true vapor pressure means the equilibrium partial pressure exerted by the stored liquid at the temperature equal to the annual average of the liquid storage temperature for liquids stored above or below the ambient temperature or at the local annual average temperature reported by the National Weather Service for liquids stored at the ambient temperature, as determined:

(1) In accordance with methods specified in §63.111 of subpart G of this part;

(2) From standard reference texts; or

(3) By any other method approved by the Administrator.

Boiler means any enclosed combustion device that extracts useful energy in the form of steam and is not an incinerator.

By compound means by individual stream components, not by carbon equivalents.

Car-seal means a seal that is placed on a device that is used to change the position of a valve (e.g., from opened to closed) in such a way that the position of the valve cannot be changed without breaking the seal.

Closed vent system means a system that is not open to the atmosphere and is configured of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission point to a control device or back into the process. If gas or vapor from regulated equipment is routed to a process (e.g., to a petroleum refinery fuel gas system), the process shall not be considered a closed vent system and is not subject to closed vent system standards.

Combustion device means an individual unit of equipment such as a flare, incinerator, process heater, or boiler used for the combustion of organic hazardous air pollutant vapors.

Connector means flanged, screwed, or other joined fittings used to connect two pipe lines or a pipe line and a piece of equipment. A common connector is a flange. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this regulation. For the purpose of reporting and record keeping, connector means joined fittings that are accessible.

Continuous record means documentation, either in hard copy or computer readable form, of data values measured at least once every hour and recorded at the frequency specified in §63.654(i).

Continuous recorder means a data recording device recording an instantaneous data value or an average data value at least once every hour.

Control device means any equipment used for recovering, removing, or oxidizing organic hazardous air pollutants. Such equipment includes, but is not limited to, absorbers, carbon adsorbers, condensers, incinerators, flares, boilers, and process heaters. For miscellaneous process vents (as defined in this section), recovery devices (as defined in this section) are not considered control devices.

Delayed coker vent means a vent that is typically intermittent in nature, and usually occurs only during the initiation of the depressuring cycle of the decoking operation when vapor from the coke drums cannot be sent to the fractionator column for product recovery, but instead is routed to the atmosphere through a closed blowdown system or directly to the atmosphere in an open blowdown system. The emissions from the decoking phases of delayed coker operations, which include coke drum deheading, draining, or decoking (coke cutting), are not considered to be delayed coker vents.

Distillate receiver means overhead receivers, overhead accumulators, reflux drums, and condenser(s) including ejector-condenser(s) associated with a distillation unit.

Distillation unit means a device or vessel in which one or more feed streams are separated into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and the vapor phases by vaporization and condensation as they approach equilibrium within the distillation unit. Distillation unit includes the distillate receiver, reboiler, and any associated vacuum pump or steam jet.

Emission point means an individual miscellaneous process vent, storage vessel, wastewater stream, or equipment leak associated with a petroleum refining process unit; an individual storage vessel or equipment leak associated with a bulk gasoline terminal or pipeline breakout station classified under Standard Industrial Classification code 2911; a gasoline loading rack classified under Standard Industrial Classification code 2911; or a marine tank vessel loading operation located at a petroleum refinery.

Equipment leak means emissions of organic hazardous air pollutants from a pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, or instrumentation system "in organic hazardous air pollutant service" as defined in this section. Vents from wastewater collection and conveyance systems (including, but not limited to wastewater drains, sewer vents, and sump drains), tank mixers, and sample valves on storage tanks are not equipment leaks.

Flame zone means the portion of a combustion chamber of a boiler or process heater occupied by the flame envelope created by the primary fuel.

Flexible operation unit means a process unit that manufactures different products periodically by alternating raw materials or operating conditions. These units are also referred to as campaign plants or blocked operations.

Flow indicator means a device that indicates whether gas is flowing, or whether the valve position would allow gas to flow, in a line.

Fuel gas system means the offsite and onsite piping and control system that gathers gaseous streams generated by refinery operations, may blend them with sources of gas, if available, and transports the blended gaseous fuel at suitable pressures for use as fuel in heaters, furnaces, boilers, incinerators, gas turbines, and other combustion devices located within or outside of the refinery. The fuel is piped directly to each individual combustion device, and the system typically operates at pressures over atmospheric. The gaseous streams can contain a mixture of methane, light hydrocarbons, hydrogen and other miscellaneous species.

Gasoline means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater that is used as a fuel for internal combustion engines.

Gasoline loading rack means the loading arms, pumps, meters, shutoff valves, relief valves, and other piping and valves necessary to fill gasoline cargo tanks.

Group 1 gasoline loading rack means any gasoline loading rack classified under Standard Industrial Classification code 2911 that is located within a bulk gasoline terminal that has a gasoline throughput greater than 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput for the terminal as may be limited by compliance with enforceable conditions under Federal, State, or local law and discovered by the Administrator and any other person.

Group 1 marine tank vessel means a vessel at an existing source loaded at any land- or sea-based terminal or structure that loads liquid commodities with vapor pressures greater than or equal to 10.3 kilopascals in bulk onto marine tank vessels, that emits greater than 9.1 megagrams of any individual HAP or 22.7 megagrams of any combination of HAP annually after August 18, 1999, or a vessel at a new source loaded at any land- or sea-based terminal or structure that loads liquid commodities with vapor pressures greater than or equal to 10.3 kilopascals onto marine tank vessels.

Group 1 miscellaneous process vent means a miscellaneous process vent for which the total organic HAP concentration is greater than or equal to 20 parts per million by volume, and the total volatile organic compound emissions are greater than or equal to 33 kilograms per day for existing sources and 6.8 kilograms per day for new sources at the outlet of the final recovery device (if any) and prior to any control device and prior to discharge to the atmosphere.

Group 1 storage vessel means a storage vessel at an existing source that has a design capacity greater than or equal to 177 cubic meters and stored-liquid maximum true vapor pressure greater than or equal to 10.4 kilopascals and stored-liquid annual average true vapor pressure greater than or equal to 8.3 kilopascals and annual average HAP liquid concentration greater than 4 percent by weight total organic HAP; a storage vessel at a new source that has a design storage capacity greater than or equal to 151 cubic meters and stored-liquid maximum true vapor pressure greater than or equal to 3.4 kilopascals and annual average HAP liquid concentration greater than 2 percent by weight total organic HAP; or a storage vessel at a new source that has a design storage capacity greater than or equal to 76 cubic meters and less than 151 cubic meters and stored-liquid maximum true vapor pressure greater than or equal to

77 kilopascals and annual average HAP liquid concentration greater than 2 percent by weight total organic HAP.

Group 1 wastewater stream means a wastewater stream at a petroleum refinery with a total annual benzene loading of 10 megagrams per year or greater as calculated according to the procedures in 40 CFR 61.342 of subpart FF of part 61 that has a flow rate of 0.02 liters per minute or greater, a benzene concentration of 10 parts per million by weight or greater, and is not exempt from control requirements under the provisions of 40 CFR Part 61, Subpart FF.

Group 2 gasoline loading rack means a gasoline loading rack classified under Standard Industrial Classification code 2911 that does not meet the definition of a Group 1 gasoline loading rack.

Group 2 marine tank vessel means a marine tank vessel that does not meet the definition of a Group 1 marine tank vessel.

Group 2 miscellaneous process vent means a miscellaneous process vent that does not meet the definition of a Group 1 miscellaneous process vent.

Group 2 storage vessel means a storage vessel that does not meet the definition of a Group 1 storage vessel.

Group 2 wastewater stream means a wastewater stream that does not meet the definition of Group 1 wastewater stream.

Hazardous air pollutant or *HAP* means one of the chemicals listed in section 112(b) of the Clean Air Act.

Incinerator means an enclosed combustion device that is used for destroying organic compounds. Auxiliary fuel may be used to heat waste gas to combustion temperatures. Any energy recovery section present is not physically formed into one manufactured or assembled unit with the combustion section; rather, the energy recovery section is a separate section following the combustion section and the two are joined by ducts or connections carrying flue gas.

In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.

In light liquid service means that the piece of equipment contains a liquid that meets the conditions specified in §60.593(d) of part 60, subpart GGG.

In organic hazardous air pollutant service means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP's as determined according to the provisions of §63.180(d) of subpart H of this part and table 1 of this subpart. The provisions of §63.180(d) of subpart H also specify how to determine that a piece of equipment is not in organic HAP service.

Leakless valve means a valve that has no external actuating mechanism.

Maximum true vapor pressure means the equilibrium partial pressure exerted by the stored liquid at the temperature equal to the highest calendar-month average of the liquid storage temperature for liquids stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for liquids stored at the ambient temperature, as determined:

(1) In accordance with methods specified in §63.111 of subpart G of this part;

(2) From standard reference texts; or

(3) By any other method approved by the Administrator.

Miscellaneous process vent means a gas stream containing greater than 20 parts per million by volume organic HAP that is continuously or periodically discharged during normal operation of a petroleum refining process unit meeting the criteria specified in §63.640(a). Miscellaneous process vents include gas streams that are discharged directly to the atmosphere, gas streams that are routed to a control device prior to discharge to the atmosphere, or gas streams that are diverted through a product recovery device prior to control or discharge to the atmosphere. Miscellaneous process vents include vent streams from: caustic wash accumulators, distillation tower condensers/accumulators, flash/knockout drums, reactor vessels, scrubber overheads, stripper overheads, vacuum (steam) ejectors, wash tower overheads, water wash accumulators, blowdown condensers/accumulators, and delayed coker vents. Miscellaneous process vents do not include:

(1) Gaseous streams routed to a fuel gas system;

(2) Relief valve discharges;

(3) Leaks from equipment regulated under §63.648;

(4) Episodic or nonroutine releases such as those associated with startup, shutdown, malfunction, maintenance, depressuring, and catalyst transfer operations;

(5) In situ sampling systems (onstream analyzers);

(6) Catalytic cracking unit catalyst regeneration vents;

(7) Catalytic reformer regeneration vents;

(8) Sulfur plant vents;

(9) Vents from control devices such as scrubbers, boilers, incinerators, and electrostatic precipitators applied to catalytic cracking unit catalyst regeneration vents, catalytic reformer regeneration vents, and sulfur plant vents;

(10) Vents from any stripping operations applied to comply with the wastewater provisions of this subpart, subpart G of this part, or 40 CFR Part 61, Subpart FF;

(11) Coking unit vents associated with coke drum depressuring at or below a coke drum outlet pressure of 15 pounds per square inch gauge, deheading, draining, or decoking (coke cutting) or pressure testing after decoking;

(12) Vents from storage vessels;

(13) Emissions from wastewater collection and conveyance systems including, but not limited to, wastewater drains, sewer vents, and sump drains; and

(14) Hydrogen production plant vents through which carbon dioxide is removed from process streams or through which steam condensate produced or treated within the hydrogen plant is degassed or deaerated.

Operating permit means a permit required by 40 CFR parts 70 or 71.

Organic hazardous air pollutant or *organic HAP* in this subpart, means any of the organic chemicals listed in table 1 of this subpart.

Petroleum-based solvents means mixtures of aliphatic hydrocarbons or mixtures of one and two ring aromatic hydrocarbons.

Periodically discharged means discharges that are intermittent and associated with routine operations. Discharges associated with maintenance activities or process upsets are not considered periodically discharged miscellaneous process vents and are therefore not regulated by the petroleum refinery miscellaneous process vent provisions.

Petroleum refining process unit means a process unit used in an establishment primarily engaged in petroleum refining as defined in the Standard Industrial Classification code for petroleum refining (2911), and used primarily for the following:

(1) Producing transportation fuels (such as gasoline, diesel fuels, and jet fuels), heating fuels (such as kerosene, fuel gas distillate, and fuel oils), or lubricants;

(2) Separating petroleum; or

(3) Separating, cracking, reacting, or reforming intermediate petroleum streams.

(4) Examples of such units include, but are not limited to, petroleum-based solvent units, alkylation units, catalytic hydrotreating, catalytic hydrorefining, catalytic hydrocracking, catalytic reforming, catalytic cracking, crude distillation, lube oil processing, hydrogen production, isomerization, polymerization, thermal processes, and blending, sweetening, and treating processes. Petroleum refining process units also include sulfur plants.

Plant site means all contiguous or adjoining property that is under common control including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof.

Primary fuel means the fuel that provides the principal heat input (i.e., more than 50 percent) to the device. To be considered primary, the fuel must be able to sustain operation without the addition of other fuels.

Process heater means an enclosed combustion device that primarily transfers heat liberated by burning fuel directly to process streams or to heat transfer liquids other than water.

Process unit means the equipment assembled and connected by pipes or ducts to process raw and/or intermediate materials and to manufacture an intended product. A process unit includes any associated storage vessels. For the purpose of this subpart, process unit includes, but is not limited to, chemical manufacturing process units and petroleum refining process units.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be accomplished. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not considered a process unit shutdown. An unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start up the unit, or would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown is not considered a process unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not considered process unit shutdowns.

Recovery device means an individual unit of equipment capable of and used for the purpose of recovering chemicals for use, reuse, or sale. Recovery devices include, but are not limited to, absorbers, carbon adsorbers, and condensers.

Reference control technology for gasoline loading racks means a vapor collection and processing system used to reduce emissions due to the loading of gasoline cargo tanks to 10 milligrams of total organic compounds per liter of gasoline loaded or less.

Reference control technology for marine vessels means a vapor collection system and a control device that reduces captured HAP emissions by 97 percent.

Reference control technology for miscellaneous process vents means a combustion device used to reduce organic HAP emissions by 98 percent, or to an outlet concentration of 20 parts per million by volume.

Reference control technology for storage vessels means either:

(1) An internal floating roof meeting the specifications of §63.119(b) of subpart G except for §63.119 (b)(5) and (b)(6);

(2) An external floating roof meeting the specifications of §63.119(c) of subpart G except for §63.119(c)(2);

(3) An external floating roof converted to an internal floating roof meeting the specifications of §63.119(d) of subpart G except for §63.119(d)(2); or

(4) A closed-vent system to a control device that reduces organic HAP emissions by 95-percent, or to an outlet concentration of 20 parts per million by volume.

(5) For purposes of emissions averaging, these four technologies are considered equivalent.

Reference control technology for wastewater means the use of:

(1) Controls specified in §61.343 through 61.347 of subpart FF of part 61;

(2) A treatment process that achieves the emission reductions specified in table 7 of this subpart for each individual HAP present in the wastewater stream or is a steam stripper that meets the specifications in §63.138(g) of subpart G of this part; and

(3) A control device to reduce by 95 percent (or to an outlet concentration of 20 parts per million by volume for combustion devices) the organic HAP emissions in the vapor streams vented from treatment processes (including the steam stripper described in paragraph (2) of this definition) managing wastewater.

Refinery fuel gas means a gaseous mixture of methane, light hydrocarbons, hydrogen, and other miscellaneous species (nitrogen, carbon dioxide, hydrogen sulfide, etc.) that is produced in the refining of crude oil and/or petrochemical processes and that is separated for use as a fuel in boilers and process heaters throughout the refinery.

Relief valve means a valve used only to release an unplanned, nonroutine discharge. A relief valve discharge can result from an operator error, a malfunction such as a power failure or equipment failure, or other unexpected cause that requires immediate venting of gas from process equipment in order to avoid safety hazards or equipment damage.

Research and development facility means laboratory and pilot plant operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and is not engaged in the manufacture of products for commercial sale, except in a de minimis manner.

Shutdown means the cessation of a petroleum refining process unit or a unit operation (including, but not limited to, a distillation unit or reactor) within a petroleum refining process unit for purposes including, but not limited to, periodic maintenance, replacement of equipment, or repair.

Startup means the setting into operation of a petroleum refining process unit for purposes of production. Startup does not include operation solely for purposes of testing equipment. Startup does not include changes in product for flexible operation units.

Storage vessel means a tank or other vessel that is used to store organic liquids. Storage vessel does not include:

(1) Vessels permanently attached to motor vehicles such as trucks, railcars, barges, or ships;

(2) Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere;

(3) Vessels with capacities smaller than 40 cubic meters;

(4) Bottoms receiver tanks; or

(5) Wastewater storage tanks. Wastewater storage tanks are covered under the wastewater provisions.

Temperature monitoring device means a unit of equipment used to monitor temperature and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5 °C, whichever is greater.

Total annual benzene means the total amount of benzene in waste streams at a facility on an annual basis as determined in §61.342 of 40 CFR Part 61, Subpart FF.

Total organic compounds or *TOC,* as used in this subpart, means those compounds excluding methane and ethane measured according to the procedures of Method 18 of 40 CFR part 60, appendix A. Method 25A may be used alone or in combination with Method 18 to measure TOC as provided in §63.645 of this subpart.

Wastewater means water or wastewater that, during production or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product and is discharged into any individual drain system. Examples are feed tank drawdown; water formed during a chemical reaction or used as a reactant; water used to wash impurities from organic products or reactants; water used to cool or quench organic vapor streams through direct contact; and condensed steam from jet ejector systems pulling vacuum on vessels containing organics.

§ 63.642 General standards.

(a) Each owner or operator of a source subject to this subpart is required to apply for a part 70 or part 71 operating permit from the appropriate permitting authority. If the EPA has approved a State operating permit program under part 70, the permit shall be obtained from the State authority. If the State operating permit program has not been approved, the source shall apply to the EPA Regional Office pursuant to part 71.

(b) [Reserved]

(c) Table 6 of this subpart specifies the provisions of subpart A of this part that apply and those that do not apply to owners and operators of sources subject to this subpart.

(d) Initial performance tests and initial compliance determinations shall be required only as specified in this subpart.

(1) Performance tests and compliance determinations shall be conducted according to the schedule and procedures specified in this subpart.

(2) The owner or operator shall notify the Administrator of the intention to conduct a performance test at least 30 days before the performance test is scheduled.

(3) Performance tests shall be conducted according to the provisions of §63.7(e) except that performance tests shall be conducted at maximum representative operating capacity for the process. During the performance test, an owner or operator shall operate the control device at either maximum or minimum representative operating conditions for monitored control device parameters, whichever results in lower emission reduction.

(4) Data shall be reduced in accordance with the EPA-approved methods specified in the applicable section or, if other test methods are used, the data and methods shall be validated according to the protocol in Method 301 of appendix A of this part.

(e) Each owner or operator of a source subject to this subpart shall keep copies of all applicable reports and records required by this subpart for at least 5 years except as otherwise specified in this subpart. All applicable records shall be maintained in such a manner that they can be readily accessed within 24

hours. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

(f) All reports required under this subpart shall be sent to the Administrator at the addresses listed in §63.13 of subpart A of this part. If acceptable to both the Administrator and the owner or operator of a source, reports may be submitted on electronic media.

(g) The owner or operator of an existing source subject to the requirements of this subpart shall control emissions of organic HAP's to the level represented by the following equation:

EA = 0.02ΣS EPV1 + ΣS EPV2 + 0.05ΣS ES1 + ΣS ES2 + ΣS EGLR1C + ΣS EGLR2 + (R) ΣS EMV1 + ΣS EMV2 + ΣS EWW1C + ΣS EWW2

where:

EA = Emission rate, megagrams per year, allowed for the source.

0.02ΣS EPV1 = Sum of the residual emissions, megagrams per year, from all Group 1 miscellaneous process vents, as defined in §63.641.

ΣS EPV2 = Sum of the emissions, megagrams per year, from all Group 2 process vents, as defined in §63.641.

0.05ΣS ES1 = Sum of the residual emissions, megagrams per year, from all Group 1 storage vessels, as defined in §63.641.

ΣS ES2 = Sum of the emissions, megagrams per year, from all Group 2 storage vessels, as defined in §63.641.

ΣS EGLR1C = Sum of the residual emissions, megagrams per year, from all Group 1 gasoline loading racks, as defined in §63.641.

ΣS EGLR2 = Sum of the emissions, megagrams per year, from all Group 2 gasoline loading racks, as defined in §63.641.

(R)ΣS EMV1 = Sum of the residual emissions megagrams per year, from all Group 1 marine tank vessels, as defined in §63.641.

R = 0.03 for existing sources, 0.02 for new sources.

ΣS EMV2 = Sum of the emissions, megagrams per year from all Group 2 marine tank vessels, as defined in §63.641.

ΣS EWW1C = Sum of the residual emissions from all Group 1 wastewater streams, as defined in §63.641. This term is calculated for each Group 1 stream according to the equation for EWWic in §63.652(h)(6).

ΣS EWW2 = Sum of emissions from all Group 2 wastewater streams, as defined in §63.641.

The emissions level represented by this equation is dependent on the collection of emission points in the source. The level is not fixed and can change as the emissions from each emission point change or as the number of emission points in the source changes.

(h) The owner or operator of a new source subject to the requirements of this subpart shall control emissions of organic HAP's to the level represented by the equation in paragraph (g) of this section.

(i) The owner or operator of an existing source shall demonstrate compliance with the emission standard in paragraph (g) of this section by following the procedures specified in paragraph (k) of this section for all emission points, or by following the emissions averaging compliance approach specified in paragraph (l) of this section for specified emission points and the procedures specified in paragraph (k) of this section for all other emission points within the source.

(j) The owner or operator of a new source shall demonstrate compliance with the emission standard in paragraph (h) of this section only by following the procedures in paragraph (k) of this section. The owner or operator of a new source may not use the emissions averaging compliance approach.

(k) The owner or operator of an existing source may comply, and the owner or operator of a new source shall comply, with the miscellaneous process vent provisions in §63.643 through 63.645, the storage vessel provisions in §63.646, the wastewater provisions in §63.647, the gasoline loading rack provisions in §63.650, and the marine tank vessel loading operation provisions in §63.651 of this subpart.

(1) The owner or operator using this compliance approach shall also comply with the requirements of §63.654 as applicable.

(2) The owner or operator using this compliance approach is not required to calculate the annual emission rate specified in paragraph (g) of this section.

(l) The owner or operator of an existing source may elect to control some of the emission points within the source to different levels than specified under §63.643 through 63.647, §63.650 and 63.651 by using an emissions averaging compliance approach as long as the overall emissions for the source do not exceed the emission level specified in paragraph (g) of this section. The owner or operator using emissions averaging shall meet the requirements in paragraphs (l)(1) and (l)(2) of this section.

(1) Calculate emission debits and credits for those emission points involved in the emissions average according to the procedures specified in §63.652; and

(2) Comply with the requirements of §63.652, 63.653, and 63.654, as applicable.

(m) A State may restrict the owner or operator of an existing source to using only the procedures in paragraph (k) of this section to comply with the emission standard in paragraph (g) of this section. Such a restriction would preclude the source from using an emissions averaging compliance approach.

§ 63.643 Miscellaneous process vent provisions.

(a) The owner or operator of a Group 1 miscellaneous process vent as defined in §63.641 shall comply with the requirements of either paragraphs (a)(1) or (a)(2) of this section.

(1) Reduce emissions of organic HAP's using a flare that meets the requirements of §63.11(b) of subpart A of this part.

(2) Reduce emissions of organic HAP's, using a control device, by 98 weight-percent or to a concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent. Compliance can be determined by measuring either organic HAP's or TOC's using the procedures in §63.645.

(b) If a boiler or process heater is used to comply with the percentage of reduction requirement or concentration limit specified in paragraph (a)(2) of this section, then the vent stream shall be introduced into the flame zone of such a device, or in a location such that the required percent reduction or concentration is achieved. Testing and monitoring is required only as specified in §63.644(a) and §63.645 of this subpart.

§ 63.644 Monitoring provisions for miscellaneous process vents.

(a) Except as provided in paragraph (b) of this section, each owner or operator of a Group 1 miscellaneous process vent that uses a combustion device to comply with the requirements in §63.643(a) shall install the monitoring equipment specified in paragraph (a)(1), (a)(2), (a)(3), or (a)(4) of this section, depending on the type of combustion device used. All monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment will monitor accurately.

(1) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

(i) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(ii) Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(2) Where a flare is used, a device (including but not limited to a thermocouple, an ultraviolet beam sensor, or an infrared sensor) capable of continuously detecting the presence of a pilot flame is required.

(3) Any boiler or process heater with a design heat input capacity greater than or equal to 44 megawatt or any boiler or process heater in which all vent streams are introduced into the flame zone is exempt from monitoring.

(4) Any boiler or process heater less than 44 megawatts design heat capacity where the vent stream is not introduced into the flame zone is required to use a temperature monitoring device in the firebox equipped with a continuous recorder.

(b) An owner or operator of a Group 1 miscellaneous process vent may request approval to monitor parameters other than those listed in paragraph (a) of this section. The request shall be submitted according to the procedures specified in §63.654(h). Approval shall be requested if the owner or operator:

(1) Uses a control device other than an incinerator, boiler, process heater, or flare; or

(2) Uses one of the control devices listed in paragraph (a) of this section, but seeks to monitor a parameter other than those specified in paragraph (a) of this section.

(c) The owner or operator of a Group 1 miscellaneous process vent using a vent system that contains bypass lines that could divert a vent stream away from the control device used to comply with paragraph (a) of this section shall comply with either paragraph (c)(1) or (c)(2) of this section. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, pressure relief valves needed for safety reasons, and equipment subject to §63.648 are not subject to this paragraph.

(1) Install, calibrate, maintain, and operate a flow indicator that determines whether a vent stream flow is present at least once every hour. Records shall be generated as specified in §63.654(h) and (i). The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or

(2) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.

(d) The owner or operator shall establish a range that ensures compliance with the emissions standard for each parameter monitored under paragraphs (a) and (b) of this section. In order to establish the range, the information required in §63.654(f)(3) shall be submitted in the Notification of Compliance Status report.

(e) Each owner or operator of a control device subject to the monitoring provisions of this section shall operate the control device in a manner consistent with the minimum and/or maximum operating parameter value or procedure required to be monitored under paragraphs (a) and (b) of this section. Operation of the control device in a manner that constitutes a period of excess emissions, as defined in §63.654(g)(6), or failure to perform procedures required by this section shall constitute a violation of the applicable emission standard of this subpart.

§ 63.645 Test methods and procedures for miscellaneous process vents.

(a) To demonstrate compliance with §63.643, an owner or operator shall follow §63.116 except for §63.116 (a)(1), (d) and (e) of subpart G of this part except as provided in paragraphs (b) through (d) and paragraph (i) of this section.

(b) All references to §63.113(a)(1) or (a)(2) in §63.116 of subpart G of this part shall be replaced with §63.643(a)(1) or (a)(2), respectively.

(c) In §63.116(c)(4)(ii)(C) of subpart G of this part, organic HAP's in the list of HAP's in table 1 of this subpart shall be considered instead of the organic HAP's in table 2 of subpart F of this part.

(d) All references to §63.116(b)(1) or (b)(2) shall be replaced with paragraphs (d)(1) and (d)(2) of this section, respectively.

(1) Any boiler or process heater with a design heat input capacity of 44 megawatts or greater.

(2) Any boiler or process heater in which all vent streams are introduced into the flame zone.

(e) For purposes of determining the TOC emission rate, as specified under paragraph (f) of this section, the sampling site shall be after the last product recovery device (as defined in §63.641 of this subpart) (if any recovery devices are present) but prior to the inlet of any control device (as defined in §63.641 of this subpart) that is present, prior to any dilution of the process vent stream, and prior to release to the atmosphere.

(1) Methods 1 or 1A of 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling site.

(2) No traverse site selection method is needed for vents smaller than 0.10 meter in diameter.

(f) Except as provided in paragraph (g) of this section, an owner or operator seeking to demonstrate that a process vent TOC mass flow rate is less than 33 kilograms per day for an existing source or less than 6.8 kilograms per day for a new source in accordance with the Group 2 process vent definition of this subpart shall determine the TOC mass flow rate by the following procedures:

(1) The sampling site shall be selected as specified in paragraph (e) of this section.

(2) The gas volumetric flow rate shall be determined using Methods 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A, as appropriate.

(3) Method 18 or Method 25A of 40 CFR part 60, appendix A shall be used to measure concentration; alternatively, any other method or data that has been validated according to the protocol in Method 301 of appendix A of this part may be used. If Method 25A is used, and the TOC mass flow rate calculated from the Method 25A measurement is greater than or equal to 33 kilograms per day for an existing source or 6.8 kilograms per day for a new source, Method 18 may be used to determine any non-VOC hydrocarbons that may be deducted to calculate the TOC (minus non-VOC hydrocarbons) concentration and mass flow rate. The following procedures shall be used to calculate parts per million by volume concentration:

(i) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15-minute intervals during the run.

(ii) The TOC concentration (C_{TOC}) is the sum of the concentrations of the individual components and shall be computed for each run using the following equation if Method 18 is used:

$$C_{TOC} = \frac{\sum_{i=1}^{x}\left(\sum_{j=1}^{n} C_{ji}\right)}{X}$$

where:

C_{TOC} = Concentration of TOC (minus methane and ethane), dry basis, parts per million by volume.

C_{ji} = Concentration of sample component j of the sample i, dry basis, parts per million by volume.

n = Number of components in the sample.

x = Number of samples in the sample run.

(4) The emission rate of TOC (minus methane and ethane) (ETOC) shall be calculated using the following equation if Method 18 is used:

$$E = K_2\left[\sum_{j=1}^{n} C_j M_j\right] Q_s$$

where:

E = Emission rate of TOC (minus methane and ethane) in the sample, kilograms per day.

K_2 = Constant, 5.986 × 10^-5 (parts per million)^-1 (gram-mole per standard cubic meter) (kilogram per gram) (minute per day), where the standard temperature (standard cubic meter) is at 20 °C.

C_j = Concentration on a dry basis of organic compound j in parts per million as measured by Method 18 of 40 CFR part 60, appendix A, as indicated in paragraph (f)(3) of this section. Cj includes all organic compounds measured minus methane and ethane.

M_j = Molecular weight of organic compound j, gram per gram-mole. Qs=Vent stream flow rate, dry standard cubic meters per minute, at a temperature of 20 °C.

Q_s = Vent stream flow rate, dry standard cubic meters per minute, at a temperature of 20 °C.

(5) If Method 25A is used, the emission rate of TOC (E_{TOC}) shall be calculated using the following equation:

$$E_{TOC} = K_2 \text{ x } C_{TOC} \text{ x } M \text{ x } Q_s$$

where:

E_{TOC} = Emission rate of TOC (minus methane and ethane) in the sample, kilograms per day.

K_2 = Constant, 5.986×10^-5 (parts per million)^-1 (gram-mole per standard cubic meter) (kilogram per gram)(minute per day), where the standard temperature (standard cubic meter) is at 20 °C.

C_{TOC} = Concentration of TOC on a dry basis in parts per million volume as measured by Method 25A of 40 CFR part 60, appendix A, as indicated in paragraph (f)(3) of this section.

M = Molecular weight of organic compound used to express units of CTOC, gram per gram-mole.

Q_s = Vent stream flow rate, dry standard cubic meters per minute, at a temperature of 20 °C.

(g) Engineering assessment may be used to determine the TOC emission rate for the representative operating condition expected to yield the highest daily emission rate.

(1) Engineering assessment includes, but is not limited to, the following:

(i) Previous test results provided the tests are representative of current operating practices at the process unit.

(ii) Bench-scale or pilot-scale test data representative of the process under representative operating conditions.

(iii) TOC emission rate specified or implied within a permit limit applicable to the process vent.

(iv) Design analysis based on accepted chemical engineering principles, measurable process parameters, or physical or chemical laws or properties. Examples of analytical methods include, but are not limited to:

(A) Use of material balances based on process stoichiometry to estimate maximum TOC concentrations;

(B) Estimation of maximum flow rate based on physical equipment design such as pump or blower capacities; and

(C) Estimation of TOC concentrations based on saturation conditions.

(v) All data, assumptions, and procedures used in the engineering assessment shall be documented.

(h) The owner or operator of a Group 2 process vent shall recalculate the TOC emission rate for each process vent, as necessary, whenever process changes are made to determine whether the vent is in

Group 1 or Group 2. Examples of process changes include, but are not limited to, changes in production capacity, production rate, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment.

For purposes of this paragraph, process changes do not include: process upsets; unintentional, temporary process changes; and changes that are within the range on which the original calculation was based.

(1) The TOC emission rate shall be recalculated based on measurements of vent stream flow rate and TOC as specified in paragraphs (e) and (f) of this section, as applicable, or on best engineering assessment of the effects of the change. Engineering assessments shall meet the specifications in paragraph (g) of this section.

(2) Where the recalculated TOC emission rate is greater than 33 kilograms per day for an existing source or greater than 6.8 kilograms per day for a new source, the owner or operator shall submit a report as specified in §63.654 (f), (g), or (h) and shall comply with the appropriate provisions in §63.643 by the dates specified in §63.640.

(i) A compliance determination for visible emissions shall be conducted within 150 days of the compliance date using Method 22 of 40 CFR part 60, appendix A, to determine visible emissions.

§ 63.646 Storage vessel provisions.

(a) Each owner or operator of a Group 1 storage vessel subject to this subpart shall comply with the requirements of §63.119 through 63.121 except as provided in paragraphs (b) through (l) of this section.

(b) As used in this section, all terms not defined in §63.641 shall have the meaning given them in 40 CFR part 63, subparts A or G. The Group 1 storage vessel definition presented in §63.641 shall apply in lieu of the Group 1 storage vessel definitions presented in tables 5 and 6 of §63.119 of subpart G of this part.

(1) An owner or operator may use good engineering judgement or test results to determine the stored liquid weight percent total organic HAP for purposes of group determination. Data, assumptions, and procedures used in the determination shall be documented.

(2) When an owner or operator and the Administrator do not agree on whether the annual average weight percent organic HAP in the stored liquid is above or below 4 percent for a storage vessel at an existing source or above or below 2 percent for a storage vessel at a new source, Method 18 of 40 CFR part 60, appendix A shall be used.

(c) The following paragraphs do not apply to storage vessels at existing sources subject to this subpart: §63.119 (b)(5), (b)(6), (c)(2), and (d)(2).

(d) References shall apply as specified in paragraphs (d)(1) through (d)(10) of this section.

(1) All references to §63.100(k) of subpart F of this part (or the schedule provisions and the compliance date) shall be replaced with §63.640(h),

(2) All references to April 22, 1994 shall be replaced with August 18, 1995.

(3) All references to December 31, 1992 shall be replaced with July 15, 1994.

(4) All references to the compliance dates specified in §63.100 of subpart F shall be replaced with §63.640 (h) through (m).

(5) All references to §63.150 in §63.119 of subpart G of this part shall be replaced with §§63.652.

(6) All references to §63.113(a)(2) of subpart G shall be replaced with §63.643(a)(2) of this subpart.

(7) All references to §63.126(b)(1) of subpart G shall be replaced with §63.422(b) of subpart R of this part.

(8) All references to §§63.128(a) of subpart G shall be replaced with §63.425, paragraphs (a) through (c) and (e) through (h) of subpart R of this part.

(9) All references to §63.139(d)(1) in §63.120(d)(1)(ii) of subpart G are not applicable. For sources subject to this subpart, such references shall mean that 40 CFR 61.355 is applicable.

(10) All references to §63.139(c) in §63.120(d)(1)(ii) of subpart G are not applicable. For sources subject to this subpart, such references shall mean that §63.647 of this subpart is applicable.

(e) When complying with the inspection requirements of §63.120 of subpart G of this part, owners and operators of storage vessels at existing sources subject to this subpart are not required to comply with the provisions for gaskets, slotted membranes, and sleeve seals.

(f) The following paragraphs (f)(1), (f)(2), and (f)(3) of this section apply to Group 1 storage vessels at existing sources:

(1) If a cover or lid is installed on an opening on a floating roof, the cover or lid shall remain closed except when the cover or lid must be open for access.

(2) Rim space vents are to be set to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(3) Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(g) Failure to perform inspections and monitoring required by this section shall constitute a violation of the applicable standard of this subpart.

(h) References in §63.119 through 63.121 to §63.122(g)(1), §63.151, and references to initial notification requirements do not apply.

(i) References to the Implementation Plan in §63.120, paragraphs (d)(2) and (d)(3)(i) shall be replaced with the Notification of Compliance Status report.

(j) References to the Notification of Compliance Status report in §63.152(b) shall be replaced with §63.654(f).

(k) References to the Periodic Reports in §63.152(c) shall be replaced with §63.654(g).

(l) The State or local permitting authority can waive the notification requirements of §63.120(a)(5), 63.120(a)(6), 63.120(b)(10)(ii), and 63.120(b)(10)(iii) for all or some storage vessels at petroleum refineries subject to this subpart. The State or local permitting authority may also grant permission to refill storage vessels sooner than 30 days after submitting the notifications in §63.120(a)(6) or 63.120(b)(10)(iii) for all storage vessels at a refinery or for individual storage vessels on a case-by-case basis.

§ 63.647 Wastewater provisions.

(a) Except as provided in paragraph (b) of this section, each owner or operator of a Group 1 wastewater stream shall comply with the requirements of §61.340 through 61.355 of 40 CFR Part 61, Subpart FF for each process wastewater stream that meets the definition in §63.641.

(b) As used in this section, all terms not defined in §63.641 shall have the meaning given them in the Clean Air Act or in 40 CFR Part 61, Subpart FF, §61.341.

(c) Each owner or operator required under subpart FF of 40 CFR part 61 to perform periodic measurement of benzene concentration in wastewater, or to monitor process or control device operating parameters shall operate in a manner consistent with the minimum or maximum (as appropriate) permitted concentration or operating parameter values. Operation of the process, treatment unit, or control device resulting in a measured concentration or operating parameter value outside the permitted limits shall constitute a violation of the emission standards. Failure to perform required leak monitoring for closed vent systems and control devices or failure to repair leaks within the time period specified in subpart FF of 40 CFR part 61 shall constitute a violation of the standard.

§ 63.648 Equipment leak standards.

(a) Each owner or operator of an existing source subject to the provisions of this subpart shall comply with the provisions of 40 CFR part 60 subpart VV and paragraph (b) of this section except as provided in paragraphs (a)(1), (a)(2), and (c) through (i) of this section. Each owner or operator of a new source subject to the provisions of this subpart shall comply with subpart H of this part except as provided in paragraphs (c) through (i) of this section.

(1) For purposes of compliance with this section, the provisions of 40 CFR part 60, subpart VV apply only to equipment in organic HAP service, as defined in §63.641 of this subpart.

(2) Calculation of percentage leaking equipment components for subpart VV of 40 CFR part 60 may be done on a process unit basis or a sourcewide basis. Once the owner or operator has decided, all subsequent calculations shall be on the same basis unless a permit change is made.

(b) The use of monitoring data generated before August 18, 1995 to qualify for less frequent monitoring of valves and pumps as provided under 40 CFR part 60 subpart VV or subpart H of this part and paragraph (c) of this section (i.e., quarterly or semiannually) is governed by the requirements of paragraphs (b)(1) and (b)(2) of this section.

(1) Monitoring data must meet the test methods and procedures specified in §60.485(b) of 40 CFR part 60, subpart VV or §63.180(b)(1) through (b)(5) of subpart H of this part except for minor departures.

(2) Departures from the criteria specified in §60.485(b) of 40 CFR part 60 subpart VV or §63.180(b)(1) through (b)(5) of subpart H of this part or from the monitoring frequency specified in subpart VV or in paragraph (c) of this section (such as every 6 weeks instead of monthly or quarterly) are minor and do not significantly affect the quality of the data. An example of a minor departure is monitoring at a slightly different frequency (such as every 6 weeks instead of monthly or quarterly). Failure to use a calibrated instrument is not considered a minor departure.

(c) In lieu of complying with the existing source provisions of paragraph (a) in this section, an owner or operator may elect to comply with the requirements of §63.161 through 63.169, 63.171, 63.172, 63.175, 63.176, 63.177, 63.179, and 63.180 of subpart H of this part except as provided in paragraphs (c)(1) through (c)(10) and (e) through (i) of this section.

(1) The instrument readings that define a leak for light liquid pumps subject to §63.163 of subpart H of this part and gas/vapor and light liquid valves subject to §63.168 of subpart H of this part are specified in table 2 of this subpart.

(2) In phase III of the valve standard, the owner or operator may monitor valves for leaks as specified in paragraphs (c)(2)(i) or (c)(2)(ii) of this section.

(i) If the owner or operator does not elect to monitor connectors, then the owner or operator shall monitor valves according to the frequency specified in table 8 of this subpart.

(ii) If an owner or operator elects to monitor connectors according to the provisions of §63.649, paragraphs (b), (c), or (d), then the owner or operator shall monitor valves at the frequencies specified in table 9 of this subpart.

(3) The owner or operator shall decide no later than the first required monitoring period after the phase I compliance date specified in §63.640(h) whether to calculate the percentage leaking valves on a process unit basis or on a sourcewide basis. Once the owner or operator has decided, all subsequent calculations shall be on the same basis unless a permit change is made.

(4) The owner or operator shall decide no later than the first monitoring period after the phase III compliance date specified in §63.640(h) whether to monitor connectors according to the provisions in §63.649, paragraphs (b), (c), or (d).

(5) Connectors in gas/vapor service or light liquid service are subject to the requirements for connectors in heavy liquid service in §63.169 of subpart H of this part (except for the agitator provisions). The leak definition for valves, connectors, and instrumentation systems subject to §63.169 is 1,000 parts per million.

(6) In phase III of the pump standard, except as provided in paragraph (c)(7) of this section, owners or operators that achieve less than 10 percent of light liquid pumps leaking or three light liquid pumps leaking, whichever is greater, shall monitor light liquid pumps monthly.

(7) Owners or operators that achieve less than 3 percent of light liquid pumps leaking or one light liquid pump leaking, whichever is greater, shall monitor light liquid pumps quarterly.

(8) An owner or operator may make the election described in paragraphs (c)(3) and (c)(4) of this section at any time except that any election to change after the initial election shall be treated as a permit modification according to the terms of part 70 of this chapter.

(9) When complying with the requirements of §63.168(e)(3)(i), non-repairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and non-repairable. Otherwise, a number of non-repairable valves up to a maximum of 1 percent per year of the total number of valves in organic HAP service up to a maximum of 3 percent may be excluded from calculation of percent leaking valves for subsequent monitoring periods. When the number of non-repairable valves exceeds 3 percent of the total number of valves in organic HAP service, the number of non-repairable valves exceeding 3 percent of the total number shall be included in the calculation of percent leaking valves.

(10) If in phase III of the valve standard any valve is designated as being leakless, the owner or operator has the option of following the provisions of 40 CFR 60.482-7(f). If an owner or operator chooses to comply with the provisions of 40 CFR 60.482-7(f), the valve is exempt from the valve monitoring provisions of §63.168 of subpart H of this part.

(d) Upon startup of new sources, the owner or operator shall comply with §63.163(a)(1)(ii) of subpart H of this part for light liquid pumps and §63.168(a)(1)(ii) of subpart H of this part for gas/vapor and light liquid valves.

(e) For reciprocating pumps in heavy liquid service and agitators in heavy liquid service, owners and operators are not required to comply with the requirements in §63.169 of subpart H of this part.

(f) Reciprocating pumps in light liquid service are exempt from §63.163 and 60.482 if recasting the distance piece or reciprocating pump replacement is required.

(g) Compressors in hydrogen service are exempt from the requirements of paragraphs (a) and (c) of this section if an owner or operator demonstrates that a compressor is in hydrogen service.

(1) Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service.

(2) For a piece of equipment to be considered in hydrogen service, it must be determined that the percentage hydrogen content can be reasonably expected always to exceed 50 percent by volume.

(i) For purposes of determining the percentage hydrogen content in the process fluid that is contained in or contacts a compressor, the owner or operator shall use either:

(A) Procedures that conform to those specified in §60.593(b)(2) of 40 part 60, subpart GGG.

(B) Engineering judgment to demonstrate that the percentage content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume.

(*1*) When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, the procedures in paragraph (g)(2)(i)(A) of this section shall be used to resolve the disagreement.

(*2*) If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only by following the procedures in paragraph (g)(2)(i)(A) of this section.

(h) Each owner or operator of a source subject to the provisions of this subpart must maintain all records for a minimum of 5 years.

(i) Reciprocating compressors are exempt from seal requirements if recasting the distance piece or compressor replacement is required.

§ 63.649 Alternative means of emission limitation: Connectors in gas/vapor service and light liquid service.

(a) If an owner or operator elects to monitor valves according to the provisions of §63.648(c)(2)(ii), the owner or operator shall implement one of the connector monitoring programs specified in paragraphs (b), (c), or (d) of this section.

(b) *Random 200 connector alternative.* The owner or operator shall implement a random sampling program for accessible connectors of 2.0 inches nominal diameter or greater. The program does not apply to inaccessible or unsafe-to-monitor connectors, as defined in §63.174 of subpart H. The sampling program shall be implemented source-wide.

(1) Within the first 12 months after the phase III compliance date specified in §63.640(h), a sample of 200 connectors shall be randomly selected and monitored using Method 21 of 40 CFR part 60, appendix A.

(2) The instrument reading that defines a leak is 1,000 parts per million.

(3) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected except as provided in paragraph (e) of this section. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(4) If a leak is detected, the connector shall be monitored for leaks within the first 3 months after its repair.

(5) After conducting the initial survey required in paragraph (b)(1) of this section, the owner or operator shall conduct subsequent monitoring of connectors at the frequencies specified in paragraphs (b)(5)(i) through (b)(5)(iv) of this section.

(i) If the percentage leaking connectors is 2.0 percent or greater, the owner or operator shall survey a random sample of 200 connectors once every 6 months.

(ii) If the percentage leaking connectors is 1.0 percent or greater but less than 2.0 percent, the owner or operator shall survey a random sample of 200 connectors once per year.

(iii) If the percentage leaking connectors is 0.5 percent or greater but less than 1.0 percent, the owner or operator shall survey a random sample of 200 connectors once every 2 years.

(iv) If the percentage leaking connectors is less than 0.5 percent, the owner or operator shall survey a random sample of 200 connectors once every 4 years.

(6) Physical tagging of the connectors to indicate that they are subject to the monitoring provisions is not required. Connectors may be identified by the area or length of pipe and need not be individually identified.

(c) *Connector inspection alternative.* The owner or operator shall implement a program to monitor all accessible connectors in gas/vapor service that are 2.0 inches (nominal diameter) or greater and inspect all accessible connectors in light liquid service that are 2 inches (nominal diameter) or greater as described in paragraphs (c)(1) through (c)(7) of this section. The program does not apply to inaccessible or unsafe-to-monitor connectors.

(1) Within 12 months after the phase III compliance date specified in §63.640(h), all connectors in gas/vapor service shall be monitored using Method 21 of 40 CFR part 60 appendix A. The instrument reading that defines a leak is 1,000 parts per million.

(2) All connectors in light liquid service shall be inspected for leaks. A leak is detected if liquids are observed to be dripping at a rate greater than three drops per minute.

(3) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected except as provided in paragraph (e) of this section. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(4) If a leak is detected, connectors in gas/vapor service shall be monitored for leaks within the first 3 months after repair. Connectors in light liquid service shall be inspected for indications of leaks within the first 3 months after repair. A leak is detected if liquids are observed to be dripping at a rate greater than three drops per minute.

(5) After conducting the initial survey required in paragraphs (c)(1) and (c)(2) of this section, the owner or operator shall conduct subsequent monitoring at the frequencies specified in paragraphs (c)(5)(i) through (c)(5)(iii) of this section.

(i) If the percentage leaking connectors is 2.0 percent or greater, the owner or operator shall monitor or inspect, as applicable, the connectors once per year.

(ii) If the percentage leaking connectors is 1.0 percent or greater but less than 2.0 percent, the owner or operator shall monitor or inspect, as applicable, the connectors once every 2 years.

(iii) If the percentage leaking connectors is less than 1.0 percent, the owner or operator shall monitor or inspect, as applicable, the connectors once every 4 years.

(6) The percentage leaking connectors shall be calculated for connectors in gas/vapor service and for connectors in light liquid service. The data for the two groups of connectors shall not be pooled for the purpose of determining the percentage leaking connectors.

(i) The percentage leaking connectors shall be calculated as follows:

$$\% CL=[(CL ! CAN)/Ct+Cc)]\times 100$$

where:

% CL=Percentage leaking connectors.

CL=Number of connectors including nonrepairables, measured at 1,000 parts per million or greater, by Method 21 of 40 CFR part 60, Appendix A.

CAN=Number of allowable nonrepairable connectors, as determined by monitoring, not to exceed 3 percent of the total connector population, Ct.

Ct=Total number of monitored connectors, including nonrepairables, in the process unit.

Cc=Optional credit for removed connectors=0.67×net number (i.e., the total number of connectors removed minus the total added) of connectors in organic HAP service removed from the process unit after the applicability date set forth in §63.640(h)(4)(iii) for existing process units, and after the date of start-up for new process units. If credits are not taken, then Cc=0.

(ii) Nonrepairable connectors shall be included in the calculation of percentage leaking connectors the first time the connector is identified as leaking and nonrepairable. Otherwise, a number of nonrepairable connectors up to a maximum of 1 percent per year of the total number of connectors in organic HAP service up to a maximum of 3 percent may be excluded from calculation of percentage leaking connectors for subsequent monitoring periods.

(iii) If the number of nonrepairable connectors exceeds 3 percent of the total number of connectors in organic HAP service, the number of nonrepairable connectors exceeding 3 percent of the total number shall be included in the calculation of the percentage leaking connectors.

(7) Physical tagging of the connectors to indicate that they are subject to the monitoring provisions is not required. Connectors may be identified by the area or length of pipe and need not be individually identified.

(d) *Subpart H program.* The owner or operator shall implement a program to comply with the provisions in §63.174 of this part.

(e) Delay of repair of connectors for which leaks have been detected is allowed if repair is not technically feasible by normal repair techniques without a process unit shutdown. Repair of this equipment shall occur by the end of the next process unit shutdown.

(1) Delay of repair is allowed for equipment that is isolated from the process and that does not remain in organic HAP service.

(2) Delay of repair for connectors is also allowed if:

(i) The owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and

(ii) When repair procedures are accomplished, the purged material would be collected and destroyed or recovered in a control device.

(f) Any connector that is designated as an unsafe-to-repair connector is exempt from the requirements of paragraphs (b)(3) and (b)(4), (c)(3) and (c)(4), or (d) of this section if:

(1) The owner or operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with paragraphs (b)(3) and (b)(4), (c)(3) and (c)(4), of this section; or

(2) The connector will be repaired before the end of the next scheduled process unit shutdown.

(g) The owner or operator shall maintain records to document that the connector monitoring or inspections have been conducted as required and to document repair of leaking connectors as applicable.

§ 63.650 Gasoline loading rack provisions. [Not Applicable]

§ 63.651 Marine tank vessel loading operation provisions. [Not Applicable]

§ 63.652 Emissions averaging provisions. [Not Applicable]

§ 63.653 Monitoring, record keeping, and implementation plan for emission averaging. [Not Applicable]

§ 63.654 Reporting and record keeping requirements.

(a) Each owner or operator subject to the wastewater provisions in §63.647 shall comply with the record keeping and reporting provisions in §61.356 and 61.357 of 40 CFR Part 61, Subpart FF unless they are complying with the wastewater provisions specified in paragraph (o)(2)(ii) of §63.640. There are no additional reporting and record keeping requirements for wastewater under this subpart unless a wastewater stream is included in an emissions average. Record keeping and reporting for emissions averages are specified in §63.653 and in paragraphs (f)(5) and (g)(8) of this section.

(b) Each owner or operator subject to the gasoline loading rack provisions in §63.650 shall comply with the record keeping and reporting provisions in §63.428 (b) and (c), (g)(1), and (h)(1) through (h)(3) of subpart R of this part. These requirements are summarized in table 4 of this subpart. There are no additional reporting and record keeping requirements for gasoline loading racks under this subpart unless a loading rack is included in an emissions average. Record keeping and reporting for emissions averages are specified in §63.653 and in paragraphs (f)(5) and (g)(8) of this section.

(c) Each owner or operator subject to the marine tank vessel loading operation standards in §63.651 shall comply with the record keeping and reporting provisions in §63.566 and 63.567(a) and §63.567 (c) through (i) of subpart Y of this part. These requirements are summarized in table 5 of this subpart. There are no additional reporting and record keeping requirements for marine tank vessel loading operations under this subpart unless marine tank vessel loading operations are included in an emissions average.

Record keeping and reporting for emissions averages are specified in §63.653 and in paragraphs (f)(5) and (g)(8) of this section.

(d) Each owner or operator subject to the equipment leaks standards in §63.648 shall comply with the record keeping and reporting provisions in paragraphs (d)(1) through (d)(6) of this section.

(1) Sections 60.486 and 60.487 of subpart VV of part 60 except as specified in paragraph (d)(1)(i) of this section; or §63.181 and 63.182 of subpart H of this part except for §63.182(b), (c)(2), and (c)(4).

(i) The signature of the owner or operator (or designate) whose decision it was that a repair could not be effected without a process shutdown is not required to be recorded. Instead, the name of the person whose decision it was that a repair could not be effected without a process shutdown shall be recorded and retained for 2 years.

(ii) [Reserved]

(2) The Notification of Compliance Status report required by §63.182(c) of subpart H and the initial semiannual report required by §60.487(b) of 40 CFR part 60, subpart VV shall be submitted within 150 days of the compliance date specified in §63.640(h); the requirements of subpart H of this part are summarized in table 3 of this subpart.

(3) An owner or operator who determines that a compressor qualifies for the hydrogen service exemption in §63.648 shall also keep a record of the demonstration required by §63.648.

(4) An owner or operator must keep a list of identification numbers for valves that are designated as leakless per §63.648(c)(10).

(5) An owner or operator must identify, either by list or location (area or refining process unit), equipment in organic HAP service less than 300 hours per year within refining process units subject to this subpart.

(6) An owner or operator must keep a list of reciprocating pumps and compressors determined to be exempt from seal requirements as per §63.648 (f) and (i).

(e) Each owner or operator of a source subject to this subpart shall submit the reports listed in paragraphs (e)(1) through (e)(3) of this section except as provided in paragraph (h)(5) of this section, and shall keep records as described in paragraph (i) of this section.

(1) A Notification of Compliance Status report as described in paragraph (f) of this section;

(2) Periodic Reports as described in paragraph (g) of this section; and

(3) Other reports as described in paragraph (h) of this section.

(f) Each owner or operator of a source subject to this subpart shall submit a Notification of Compliance Status report within 150 days after the compliance dates specified in §63.640(h) with the exception of Notification of Compliance Status reports submitted to comply with §63.640(l)(3) and for storage vessels subject to the compliance schedule specified in §63.640(h)(4). Notification of Compliance Status reports required by §63.640(l)(3) and for storage vessels subject to the compliance dates specified in §63.640(h)(4) shall be submitted according to paragraph (f)(6) of this section. This information may be submitted in an operating permit application, in an amendment to an operating permit application, in a

separate submittal, or in any combination of the three. If the required information has been submitted before the date 150 days after the compliance date specified in §63.640(h), a separate Notification of Compliance Status report is not required within 150 days after the compliance dates specified in §63.640(h).

If an owner or operator submits the information specified in paragraphs (f)(1) through (f)(5) of this section at different times, and/or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the previously submitted information. Each owner or operator of a gasoline loading rack classified under Standard Industrial Classification Code 2911 located within a contiguous area and under common control with a petroleum refinery subject to the standards of this subpart shall submit the Notification of Compliance Status report required by subpart R of this part within 150 days after the compliance dates specified in §63.640(h) of this subpart.

(1) The Notification of Compliance Status report shall include the information specified in paragraphs (f)(1)(i) through (f)(1)(v) of this section.

(i) For storage vessels, this report shall include the information specified in paragraphs (f)(1)(i)(A) through (f)(1)(i)(D) of this section.

(A) Identification of each storage vessel subject to this subpart, and for each Group 1 storage vessel subject to this subpart, the information specified in paragraphs (f)(1)(i)(A)(*1*) through (f)(1)(i)(A)(*3*) of this section. This information is to be revised each time a Notification of Compliance Status report is submitted for a storage vessel subject to the compliance schedule specified in §63.640(h)(4) or to comply with §63.640(l)(3).

(*1*) For each Group 1 storage vessel complying with §63.646 that is not included in an emissions average, the method of compliance (i.e., internal floating roof, external floating roof, or closed vent system and control device).

(*2*) For storage vessels subject to the compliance schedule specified in §63.640(h)(4) that are not complying with §63.646, the anticipated compliance date.

(*3*) For storage vessels subject to the compliance schedule specified in §63.640(h)(4) that are complying with §63.646 and the Group 1 storage vessels described in §63.640(l), the actual compliance date.

(B) If a closed vent system and a control device other than a flare is used to comply with §63.646 the owner or operator shall submit:

(*1*) A description of the parameter or parameters to be monitored to ensure that the control device is being properly operated and maintained, an explanation of the criteria used for selection of that parameter (or parameters), and the frequency with which monitoring will be performed; and either

(*2*) The design evaluation documentation specified in §63.120(d)(1)(i) of subpart G, if the owner or operator elects to prepare a design evaluation; or

(*3*) If the owner or operator elects to submit the results of a performance test, identification of the storage vessel and control device for which the performance test will be submitted, and identification of the emission point(s) that share the control device with the storage vessel and for which the performance test will be conducted.

(C) If a closed vent system and control device other than a flare is used, the owner or operator shall submit:

(*1*) The operating range for each monitoring parameter. The specified operating range shall represent the conditions for which the control device is being properly operated and maintained.

(*2*) If a performance test is conducted instead of a design evaluation, results of the performance test demonstrating that the control device achieves greater than or equal to the required control efficiency. A performance test conducted prior to the compliance date of this subpart can be used to comply with this requirement, provided that the test was conducted using EPA methods and that the test conditions are representative of current operating practices.

(D) If a closed vent system and a flare is used, the owner or operator shall submit:

(*1*) Flare design (e.g., steam-assisted, air-assisted, or nonassisted);

(*2*) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by §63.120(e) of subpart G of this part; and

(*3*) All periods during the compliance determination when the pilot flame is absent.

(ii) For miscellaneous process vents, identification of each miscellaneous process vent subject to this subpart, whether the process vent is Group 1 or Group 2, and the method of compliance for each Group 1 miscellaneous process vent that is not included in an emissions average (e.g., use of a flare or other control device meeting the requirements of §63.643(a)).

(iii) For miscellaneous process vents controlled by control devices required to be tested under §63.645 of this subpart and §63.116(c) of subpart G of this part, performance test results including the information in paragraphs (f)(1)(iii)(A) and (B) of this section. Results of a performance test conducted prior to the compliance date of this subpart can be used provided that the test was conducted using the methods specified in §63.645 and that the test conditions are representative of current operating conditions.

(A) The percentage of reduction of organic HAP's or TOC, or the outlet concentration of organic HAP's or TOC (parts per million by volume on a dry basis corrected to 3 percent oxygen), determined as specified in §63.116(c) of subpart G of this part; and

(B) The value of the monitored parameters specified in table 10 of this subpart, or a site-specific parameter approved by the permitting authority, averaged over the full period of the performance test,

(iv) For miscellaneous process vents controlled by flares, performance test results including the information in paragraphs (f)(1)(iv)(A) and (B) of this section;

(A) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by §63.645 of this subpart and §63.116(a) of subpart G of this part, and

(B) A statement of whether a flame was present at the pilot light over the full period of the compliance determination.

(v) For equipment leaks complying with §63.648(c) (i.e., complying with the requirements of subpart H of this part), the Notification of Compliance Report Status report information required by §63.182(c) of subpart H and whether the percentage of leaking valves will be reported on a process unit basis or a sourcewide basis.

(2) If initial performance tests are required by §63.643 through 63.653 of this subpart, the Notification of Compliance Status report shall include one complete test report for each test method used for a particular source.

(i) For additional tests performed using the same method, the results specified in paragraph (f)(1) of this section shall be submitted, but a complete test report is not required.

(ii) A complete test report shall include a sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.

(iii) Performance tests are required only if specified by §63.643 through 63.653 of this subpart. Initial performance tests are required for some kinds of emission points and controls. Periodic testing of the same emission point is not required.

(3) For each monitored parameter for which a range is required to be established under §63.120(d) of subpart G of this part for storage vessels or §63.644 for miscellaneous process vents, the Notification of Compliance Status report shall include the information in paragraphs (f)(3)(i) through (f)(3)(iii) of this section.

(i) The specific range of the monitored parameter(s) for each emission point;

(ii) The rationale for the specific range for each parameter for each emission point, including any data and calculations used to develop the range and a description of why the range ensures compliance with the emission standard.

(A) If a performance test is required by this subpart for a control device, the range shall be based on the parameter values measured during the performance test supplemented by engineering assessments and manufacturer's recommendations. Performance testing is not required to be conducted over the entire range of permitted parameter values.

(B) If a performance test is not required by this subpart for a control device, the range may be based solely on engineering assessments and manufacturers' recommendations.

(iii) A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

(4) Results of any continuous monitoring system performance evaluations shall be included in the Notification of Compliance Status report.

(5) **[Not Applicable]** For emission points included in an emissions average, the Notification of Compliance Status report shall include the values of the parameters needed for input to the emission credit and debit equations in §63.652(g) and (h), calculated or measured according to the procedures in

§63.652(g) and (h), and the resulting credits and debits for the first quarter of the year. The first quarter begins on the compliance date specified in §63.640.

(6) Notification of Compliance Status reports required by §63.640(l)(3) and for storage vessels subject to the compliance dates specified in §63.640(h)(4) shall be submitted no later than 60 days after the end of the 6-month period during which the change or addition was made that resulted in the Group 1 emission point or the existing Group 1 storage vessel was brought into compliance, and may be combined with the periodic report. Six-month periods shall be the same 6-month periods specified in paragraph (g) of this section. The Notification of Compliance Status report shall include the information specified in paragraphs (f)(1) through (f)(5) of this section. This information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, as part of the periodic report, or in any combination of these four. If the required information has been submitted before the date 60 days after the end of the 6-month period in which the addition of the Group 1 emission point took place, a separate Notification of Compliance Status report is not required within 60 days after the end of the 6-month period. If an owner or operator submits the information specified in paragraphs (f)(1) through (f)(5) of this section at different times, and/or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the previously submitted information.

(g) The owner or operator of a source subject to this subpart shall submit Periodic Reports no later than 60 days after the end of each 6-month period when any of the compliance exceptions specified in paragraphs (g)(1) through (g)(6) of this section occur. The first 6-month period shall begin on the date the Notification of Compliance Status report is required to be submitted. A Periodic Report is not required if none of the compliance exceptions specified in paragraphs (g)(1) through (g)(6) of this section occurred during the 6-month period unless emissions averaging is utilized. Quarterly reports must be submitted for emission points included in emissions averages, as provided in paragraph (g)(8) of this section. An owner or operator may submit reports required by other regulations in place of or as part of the Periodic Report required by this paragraph if the reports contain the information required by paragraphs (g)(1) through (g)(8) of this section.

(1) For storage vessels, Periodic Reports shall include the information specified for Periodic Reports in paragraph (g)(2) through (g)(5) of this section except that information related to gaskets, slotted membranes, and sleeve seals is not required for storage vessels that are part of an existing source.

(2) An owner or operator who elects to comply with §63.646 by using a fixed roof and an internal floating roof or by using an external floating roof converted to an internal floating roof shall submit the results of each inspection conducted in accordance with §63.120(a) of subpart G of this part in which a failure is detected in the control equipment.

(i) For vessels for which annual inspections are required under §63.120(a)(2)(i) or (a)(3)(ii) of subpart G of this part, the specifications and requirements listed in paragraphs (g)(2)(i)(A) through (g)(2)(i)(C) of this section apply.

(A) A failure is defined as any time in which the internal floating roof is not resting on the surface of the liquid inside the storage vessel and is not resting on the leg supports; or there is liquid on the floating roof; or the seal is detached from the internal floating roof; or there are holes, tears, or other openings in the seal or seal fabric; or there are visible gaps between the seal and the wall of the storage vessel.

(B) Except as provided in paragraph (g)(2)(i)(C) of this section, each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made or the date the storage vessel was emptied.

(C) If an extension is utilized in accordance with §63.120(a)(4) of subpart G of this part, the owner or operator shall, in the next Periodic Report, identify the vessel; include the documentation specified in §§63.120(a)(4) of subpart G of this part; and describe the date the storage vessel was emptied and the nature of and date the repair was made.

(ii) For vessels for which inspections are required under §63.120(a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of subpart G of this part (i.e., internal inspections), the specifications and requirements listed in paragraphs (g)(2)(ii)(A) and (g)(2)(ii)(B) of this section apply.

(A) A failure is defined as any time in which the internal floating roof has defects; or the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal (if one has been installed) has holes, tears, or other openings in the seal or the seal fabric; or, for a storage vessel that is part of a new source, the gaskets no longer close off the liquid surface from the atmosphere; or, for a storage vessel that is part of a new source, the slotted membrane has more than a 10 percent open area.

(B) Each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made.

(3) An owner or operator who elects to comply with §63.646 by using an external floating roof shall meet the periodic reporting requirements specified in paragraphs (g)(3)(i) through (g)(3)(iii) of this section.

(i) The owner or operator shall submit, as part of the Periodic Report, documentation of the results of each seal gap measurement made in accordance with §63.120(b) of subpart G of this part in which the seal and seal gap requirements of §63.120(b)(3), (b)(4), (b)(5), or (b)(6) of subpart G of this part are not met. This documentation shall include the information specified in paragraphs (g)(3)(i)(A) through (g)(3)(i)(D) of this section.

(A) The date of the seal gap measurement.

(B) The raw data obtained in the seal gap measurement and the calculations described in §63.120(b)(3) and (b)(4) of subpart G of this part.

(C) A description of any seal condition specified in §63.120(b)(5) or (b)(6) of subpart G of this part that is not met.

(D) A description of the nature of and date the repair was made, or the date the storage vessel was emptied.

(ii) If an extension is utilized in accordance with §63.120(b)(7)(ii) or (b)(8) of subpart G of this part, the owner or operator shall, in the next Periodic Report, identify the vessel; include the documentation specified in §63.120(b)(7)(ii) or (b)(8) of subpart G of this part, as applicable; and describe the date the vessel was emptied and the nature of and date the repair was made.

(iii) The owner or operator shall submit, as part of the Periodic Report, documentation of any failures that are identified during visual inspections required by §63.120(b)(10) of subpart G of this part. This documentation shall meet the specifications and requirements in paragraphs (g)(3)(iii)(A) and (g)(3)(iii)(B) of this section.

(A) A failure is defined as any time in which the external floating roof has defects; or the primary seal has holes or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or, for a storage vessel that is part of a new source, the gaskets no longer close off the liquid surface from the atmosphere; or, for a storage vessel that is part of a new source, the slotted membrane has more than 10 percent open area.

(B) Each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made.

(4) An owner or operator who elects to comply with §63.646 by using an external floating roof converted to an internal floating roof shall comply with the periodic reporting requirements of paragraph (g)(2) of this section.

(5) An owner or operator who elects to comply with §63.646 by installing a closed vent system and control device shall submit, as part of the next Periodic Report, the information specified in paragraphs (g)(5)(i) through (g)(5)(iii) of this section.

(i) The Periodic Report shall include the information specified in paragraphs (g)(5)(i)(A) and (g)(5)(i)(B) of this section for those planned routine maintenance operations that would require the control device not to meet the requirements of §63.119(e)(1) or (e)(2) of subpart G of this part, as applicable.

(A) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6 months. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(B) A description of the planned routine maintenance that was performed for the control device during the previous 6 months. This description shall include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of §63.119 (e)(1) or (e)(2) of subpart G of this part, as applicable, due to planned routine maintenance.

(ii) If a control device other than a flare is used, the Periodic Report shall describe each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status report. The description shall include: Identification of the control device for which the measured parameters were outside of the established ranges, and causes for the measured parameters to be outside of the established ranges.

(iii) If a flare is used, the Periodic Report shall describe each occurrence when the flare does not meet the general control device requirements specified in §63.11(b) of subpart A of this part and shall include: Identification of the flare that does not meet the general requirements specified in §63.11(b) of subpart A of this part, and reasons the flare did not meet the general requirements specified in §63.11(b) of subpart A of this part.

(6) For miscellaneous process vents for which continuous parameter monitors are required by this subpart, periods of excess emissions shall be identified in the Periodic Reports and shall be used to determine compliance with the emission standards.

(i) Period of excess emission means any of the following conditions:

(A) An operating day when the daily average value of a monitored parameter, except presence of a flare pilot flame, is outside the range specified in the Notification of Compliance Status report. Monitoring data recorded during periods of monitoring system breakdown, repairs, calibration checks and zero (low-level) and high-level adjustments shall not be used in computing daily average values of monitored parameters.

(B) An operating day when all pilot flames of a flare are absent.

(C) An operating day when monitoring data required to be recorded in paragraphs (i)(3) (i) and (ii) of this section are available for less than 75 percent of the operating hours.

(D) For data compression systems approved under paragraph (h)(5)(iii) of this section, an operating day when the monitor operated for less than 75 percent of the operating hours or a day when less than 18 monitoring values were recorded.

(ii) For miscellaneous process vents, excess emissions shall be reported for the operating parameters specified in table 10 of this subpart unless other site-specific parameter(s) have been approved by the operating permit authority.

(iii) Periods of startup and shutdown that meet the definition of §63.641, and malfunction that meet the definition in §63.2 and periods of performance testing and monitoring system calibration shall not be considered periods of excess emissions. Malfunctions may include process unit, control device, or monitoring system malfunctions.

(7) If a performance test for determination of compliance for a new emission point subject to this subpart or for an emission point that has changed from Group 2 to Group 1 is conducted during the period covered by a Periodic Report, the results of the performance test shall be included in the Periodic Report.

(i) Results of the performance test shall include the percentage of emissions reduction or outlet pollutant concentration reduction (whichever is needed to determine compliance) and the values of the monitored operating parameters.

(ii) The complete test report shall be maintained onsite.

(8) **[All reporting requirements in this section are not applicable, since emissions averaging is not applicable]**

(h) Other reports shall be submitted as specified in subpart A of this part and as follows:

(1) Reports of startup, shutdown, and malfunction required by §63.10(d)(5). Records and reports of startup, shutdown, and malfunction are not required if they pertain solely to Group 2 emission points, as defined in §63.641, that are not included in an emissions average. For purposes of this paragraph, startup and shutdown shall have the meaning defined in §63.641, and malfunction shall have the meaning defined in §63.2; and

(2) For storage vessels, notifications of inspections as specified in paragraphs (h)(2)(i) and (h)(2)(ii) of this section;

(i) In order to afford the Administrator the opportunity to have an observer present, the owner or operator shall notify the Administrator of the refilling of each Group 1 storage vessel that has been emptied and degassed.

(A) Except as provided in paragraphs (h)(2)(i) (B) and (C) of this section, the owner or operator shall notify the Administrator in writing at least 30 calendar days prior to filling or refilling of each storage vessel with organic HAP's to afford the Administrator the opportunity to inspect the storage vessel prior to refilling.

(B) Except as provided in paragraph (h)(2)(i)(C) of this section, if the internal inspection required by §63.120(a)(2), 63.120(a)(3), or 63.120(b)(10) of subpart G of this part is not planned and the owner or operator could not have known about the inspection 30 calendar days in advance of refilling the vessel with organic HAP's, the owner or operator shall notify the Administrator at least 7 calendar days prior to refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. This notification, including the written documentation, may also be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to the refilling.

(C) The State or local permitting authority can waive the notification requirements of paragraphs (h)(2)(i)(A) and/or (h)(2)(i)(B) of this section for all or some storage vessels at petroleum refineries subject to this subpart. The State or local permitting authority may also grant permission to refill storage vessels sooner than 30 days after submitting the notification required by paragraph (h)(2)(i)(A) of this section, or sooner than 7 days after submitting the notification required by paragraph (h)(2)(i)(B) of this section for all storage vessels, or for individual storage vessels on a case-by-case basis.

(ii) In order to afford the Administrator the opportunity to have an observer present, the owner or operator of a storage vessel equipped with an external floating roof shall notify the Administrator of any seal gap measurements. The notification shall be made in writing at least 30 calendar days in advance of any gap measurements required by §63.120 (b)(1) or (b)(2) of subpart G of this part. The State or local permitting authority can waive this notification requirement for all or some storage vessels subject to the rule or can allow less than 30 calendar days’’ notice.

(3) For owners or operators of sources required to request approval for a nominal control efficiency for use in calculating credits for an emissions average, the information specified in §63.652(h).

(4) The owner or operator who requests approval to monitor a different parameter than those listed in §63.644 for miscellaneous process vents or who is required by §63.653(a)(8) to establish a site-specific monitoring parameter for a point in an emissions average shall submit the information specified in paragraphs (h)(4)(i) through (h)(4)(iii) of this section. For new or reconstructed sources, the information shall be submitted with the application for approval of construction or reconstruction required by §63.5(d) of subpart A and for existing sources, and the information shall be submitted no later than 18 months prior to the compliance date. The information may be submitted in an operating permit application, in an amendment to an operating permit application, or in a separate submittal.

(i) A description of the parameter(s) to be monitored to determine whether excess emissions occur and an explanation of the criteria used to select the parameter(s).

(ii) A description of the methods and procedures that will be used to demonstrate that the parameter can be used to determine excess emissions and the schedule for this demonstration. The owner or operator must certify that they will establish a range for the monitored parameter as part of the Notification of Compliance Status report required in paragraphs (e) and (f) of this section.

(iii) The frequency and content of monitoring, recording, and reporting if: monitoring and recording are not continuous; or if periods of excess emissions, as defined in paragraph (g)(6) of this section, will not be identified in Periodic Reports required under paragraphs (e) and (g) of this section. The rationale for the proposed monitoring, recording, and reporting system shall be included.

(5) An owner or operator may request approval to use alternatives to the continuous operating parameter monitoring and record keeping provisions listed in paragraph (i) of this section.

(i) Requests shall be submitted with the Application for Approval of Construction or Reconstruction for new sources and no later than 18 months prior to the compliance date for existing sources. The information may be submitted in an operating permit application, in an amendment to an operating permit application, or in a separate submittal. Requests shall contain the information specified in paragraphs (h)(5)(iii) through (h)(5)(iv) of this section, as applicable.

(ii) The provisions in §63.8(f)(5)(i) of subpart A of this part shall govern the review and approval of requests.

(iii) An owner or operator may request approval to use an automated data compression recording system that does not record monitored operating parameter values at a set frequency (for example, once every hour) but records all values that meet set criteria for variation from previously recorded values.

(A) The requested system shall be designed to:

(*1*) Measure the operating parameter value at least once every hour.

(*2*) Record at least 24 values each day during periods of operation.

(*3*) Record the date and time when monitors are turned off or on.

(*4*) Recognize unchanging data that may indicate the monitor is not functioning properly, alert the operator, and record the incident.

(*5*) Compute daily average values of the monitored operating parameter based on recorded data.

(B) The request shall contain a description of the monitoring system and data compression recording system including the criteria used to determine which monitored values are recorded and retained, the method for calculating daily averages, and a demonstration that the system meets all criteria of paragraph (h)(5)(iii)(A) of this section.

(iv) An owner or operator may request approval to use other alternative monitoring systems according to the procedures specified in §63.8(f) of subpart A of this part.

(6) The owner or operator shall submit the information specified in paragraphs (h)(6)(i) through (h)(6)(iii) of this section, as applicable. For existing sources, this information shall be submitted in the initial Notification of Compliance Status report. For a new source, the information shall be submitted

with the application for approval of construction or reconstruction required by §63.5(d) of subpart A of this part. The information may be submitted in an operating permit application, in an amendment to an operating permit application, or in a separate submittal.

(i) The determination of applicability of this subpart to petroleum refining process units that are designed and operated as flexible operation units.

(ii) The determination of applicability of this subpart to any storage vessel for which use varies from year to year.

(iii) The determination of applicability of this subpart to any distillation unit for which use varies from year to year.

(i) *Record keeping.* (1) Each owner or operator subject to the storage vessel provisions in §63.646 shall keep the records specified in §63.123 of subpart G of this part except as specified in paragraphs (i)(1)(i) through (i)(1)(iv) of this section.

(i) Records related to gaskets, slotted membranes, and sleeve seals are not required for storage vessels within existing sources.

(ii) All references to §63.122 in §63.123 of subpart G of this part shall be replaced with §63.654(e),

(iii) All references to §63.150 in §63.123 of subpart G of this part shall be replaced with §63.652.

(iv) If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

(2) Each owner or operator required to report the results of performance tests under paragraphs (f) and (g)(7) of this section shall retain a record of all reported results as well as a complete test report, as described in paragraph (f)(2)(ii) of this section for each emission point tested.

(3) Each owner or operator required to continuously monitor operating parameters under §63.644 for miscellaneous process vents or under §63.652 and 63.653 for emission points in an emissions average shall keep the records specified in paragraphs (i)(3)(i) through (i)(3)(v) of this section unless an alternative record keeping system has been requested and approved under paragraph (h) of this section.

(i) The monitoring system shall measure data values at least once every hour.

(ii) The owner or operator shall record either:

(A) Each measured data value; or

(B) Block average values for 1 hour or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values.

(iii) Daily average values of each continuously monitored parameter shall be calculated for each operating day and retained for 5 years except as specified in paragraph (i)(3)(iv) of this section.

(A) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous, or the number of hours of operation per day if operation is not continuous.

(B) The operating day shall be the period defined in the Notification of Compliance Status report. It may be from midnight to midnight or another daily period.

(iv) If all recorded values for a monitored parameter during an operating day are within the range established in the Notification of Compliance Status report, the owner or operator may record that all values were within the range and retain this record for 5 years rather than calculating and recording a daily average for that day. For these days, the records required in paragraph (i)(3)(ii) of this section shall also be retained for 5 years.

(v) Monitoring data recorded during periods of monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments shall not be included in any average computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device operation when monitors are not operating.

(4) All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

§ 63.655 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the requirements in §63.640, 63.642(g) through (l), 63.643, and 63.646 through 63.652. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. Where these standards reference another subpart and modify the requirements, the requirements shall be modified as described in this subpart. Delegation of the modified requirements will also occur according to the delegation provisions of the referenced subpart.

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(4) Approval of major alternatives to record keeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

§ 63.656-63.679 [Reserved]

Appendix to Subpart CC of Part 63——Tables

Table 1 - Hazardous Air Pollutants

Chemical name	CAS No.[a]
Benzene	71432
Biphenyl	92524
Butadiene (1,3)	10990
Carbon disulfide	75150
Carbonyl sulfide	463581
Cresol (mixed isomers [b])	1319773
Cresol (m-)	108394
Cresol (o-)	95487
Cresol (p-)	106445
Cumene	98828
Dibromoethane (1,2) (ethylene dibromide)	106934
Dichloroethane (1,2)	107062
Diethanolamine	111422
Ethylbenzene	100414
Ethylene glycol	107211
Hexane	110543
Methanol	67561
Methyl ethyl ketone (2-butanone)	78933
Methyl isobutyl ketone (hexone)	108101
Methyl tert butyl ether	1634044
Naphthalene	91203
Phenol	108952
Toluene	108883
Trimethylpentane (2,2,4)	540841
Xylene (mixed isomers [b])	1330207
xylene (m-)	108383
xylene (o-)	95476
xylene (p-)	106423

[a] CAS number = Chemical Abstract Service registry number assigned to specific compounds, isomers, or mixtures of compounds.

[b] Isomer means all structural arrangements for the same number of atoms of each element and does not mean salts, esters, or derivatives.

Table 2 - Leak Definitions for Pumps and Valves

Standard[a]	Phase	Leak definition (parts per million)
§ 63.163 (pumps).....	I	10,000
	II	5,000
	III	2,000
§ 63.168 (valves).....	I	10,000
	II	1,000
	III	1,000

[a] Subpart H of this part.

Table 3 - Equipment Leak Record keeping and Reporting Requirements for Sources Complying With § 63.648 of Subpart CC by Compliance With Subpart H of this Part [a]

Reference (section of subpart H of this part)	Description	Comment
63.181(a).....	Record keeping system requirements	Except for. § 63.181(b)(2)(iii) and 63.181(b)(9).
63.181(b).....	Records required process unit	Except for § 63.181(b)(2)(iii) and 63.181(b)(9).
63.181(c).....	Visual inspection documentation	Except for § 63.181(b)(2)(iii) and 63.181(b)(9).
63.181(d).....	Leak detection record requirements	63.181(d)(8).
63.181(e).....	Compliance requirements for pressure tests for batch product process equipment trains	This subsection does not apply to subpart CC.
63.181(f).....	Compressor compliance test records	
63.181(g).....	Closed-vent systems and control device record requirements	
63.181(h).....	Process unit quality improvement program records.	
63.181(i).....	Heavy liquid service determination record	
63.181(j).....	Equipment identification record	
63.181(k).....	Enclosed-vented process unit emission limitation record requirements	
63.182(a).....	Reports	

63.182(b).....	Initial notification report requirements	Not required.
63.182(c).....	Notification of compliance status report	Except in § 63.182 (c); change ``within 90 days of the compliance dates'' to ``within 150 days of the compliance dates''; except in § 63.182 (c)(2) and (c)(4).
63.182(d).....	Periodic report	Except for § 63.182 (d)(2)(vii), (d)(2)(viii), and (d)(3).

[a] This table does not include all the requirements delineated under the referenced sections. See referenced sections for specific requirements.

Table 4 - Gasoline Distribution Emission Point Record keeping and Reporting Requirements [Not Applicable]

Table 5 - Marine Vessel Loading and Unloading Operations Record keeping and Reporting Requirements [Not Applicable]

Table 6 - General Provisions Applicability to Subpart CC [a]

Reference	Applies to subpart CC	Comment
63.1(a)(1).....	Yes	
63.1(a)(2).....	Yes	
63.1(a)(3).....	Yes	
63.1(a)(4).....	No	Subpart CC (this table) specifies applicability of each paragraph in subpart A to subpart CC.
63.1(a)(5)-63.1(a)(9)....	No	
63.1(a)(10).....	No	Subpart CC and other cross-referenced subparts specify calendar or operating day.
63.1(a)(11).....	Yes	
63.1(a)(12).....	Yes	
63.1(a)(13).....	Yes	
63.1(a)(14).....	Yes	
63.1(b)(1).....	No	Subpart CC specifies its own applicability.
63.1(b)(2).....	Yes	
63.1(b)(3).....	No	
63.1(c)(1).....	No	Subpart CC explicitly specifies requirements that apply.
63.1(c)(2).....	No	Area sources are not subject to subpart CC.

63.1(c)(3).....	No		
63.1(c)(4).....	Yes		
63.1(c)(5).....	Yes		Except that sources are not required to submit notifications overridden by this table.
63.1(d).....		No	
63.1(e).....		No	
63.2.....	Yes		§ 63.641 of subpart CC specifies that if the same term is defined in subparts A and CC, it shall have the meaning given in subpart CC.
63.3.....	No		Units of measure are spelled out in subpart CC.
63.4(a)(1)-63.4(a)(3).....	Yes		
63.4(a)(4).....	No		Reserved.
63.4(a)(5).....	Yes		
63.4(b).....		Yes	
63.4(c).....		Yes	
63.5(a)(1).....	Yes		Except replace term ``source'' and ``stationary source'' in § 63.5(a)(1) of subpart A with ``affected source.''
63.5(a)(2).....	Yes		
63.5(b)(1).....	Yes		
63.5(b)(2).....	No		Reserved.
63.5(b)(3).....	Yes		
63.5(b)(4).....	Yes		Except the cross- reference to § 63.9(b) is changed to § 63.9(b) (4) and (5). Subpart CC overrides § 63.9 (b)(2) and (b)(3).
63.5(b)(5).....	Yes		
63.5(b)(6).....	Yes		
63.5(c).....		No	Reserved.
63.5(d)(1)(i).....	Yes		Except that the application shall be submitted as soon as practicable before startup but no later than 90 days (rather than 60 days) after the promulgation date of subpart CC if the construction or reconstruction had commenced and initial startup had not occurred before the promulgation of subpart CC.
63.5(d)(1)(ii).....	Yes		Except that for affected sources subject to subpart CC, emission estimates specified in § 63.5(d)(1)(ii)(H) are not required.
63.5(d)(1)(iii).....	No		Subpart CC requires submittal of the notification of compliance status report in § 63.654(e).
63.5(d)(2).....	No		
63.5(d)(3).....	Yes		Except § 63.5(d)(3)(ii) does not apply.
63.5(d)(4).....	Yes		
63.5(e).....		Yes	
63.5(f)(1).....	Yes		

63.5(f)(2).....	Yes		Except that the ``60 days" in the cross- referenced § 63.5(d)(1) is changed to ``90 days," and the cross-reference to (b)(2) does not apply.
63.6(a).....		Yes	
63.6(b)(1).....	No		Subpart CC specifies compliance dates for sources subject to subpart CC.
63.6(b)(2).....	No		
63.6(b)(3).....	Yes		
63.6(b)(4).....	No		May apply when standards are proposed under section 112(f) of the Clean Air Act.
63.6(b)(5).....	No		§ 63.654(d) of subpart CC includes notification requirements.
63.6(b)(6).....	No		
63.6(b)(7).....	No		
63.6(c)(1).....	No		§ 63.640 of subpart CC specifies the compliance date.
63.6(c)(2)-63.6(c)(4).....	No		
63.6(c)(5).....	Yes		
63.6(d).....		No	
63.6(e).....		Yes	Does not apply to Group 2 emission points.b The startup, shutdown, and malfunction plan specified in § 63.6(e)(3) is not required for wastewater operations that are not subject to subpart G of this part. Except that actions taken during a startup, shutdown, or malfunction that are not consistent with the startup, shutdown, and malfunction plan do not need to be reported within 2 and 7 days of commencing and completing the action, respectively, but must be included in the next periodic report.
63.6(f)(1).....	Yes		
63.6(f)(2)(i).....	Yes		
63.6(f)(2)(ii).....	Yes		Subpart CC specifies the use of monitoring data in determining compliance with subpart CC.
63.6(f)(2)(iii) (A), (B), and (C)	Yes		
63.6(f)(2)(iii)(D).....	No		
63.6(f)(2)(iv).....	Yes		
63.6(f)(2)(v).....	Yes		
63.6(f)(3).....	Yes		
63.6(g).....		Yes	
63.6(h).....	No		Subpart CC does not require opacity and visible emission standards.

63.6(h) (1) and (2).....	Yes		
63.6(h) (4) and (5).....	No		Visible emission requirements and timing in subpart CC.
63.6(h)(6).....	Yes		
63.6(h) (7) through (9).....	No		Subpart CC does not require opacity standards.
63.6(i).....	Yes		Except for § 63.6(i)(15), which is reserved.
63.6(j).....	Yes		
63.7(a)(1).....	No		Subpart CC specifies required testing and compliance demonstration procedures.
63.7(a)(2).....	No		Test results must be submitted in the notification of compliance status report due 150 days after compliance date, as specified in § 63.654(d) of subpart CC.
63.7(a)(3).....	Yes		
63.7(b).....		No	
63.7(c).....		No	
63.7(d).....		Yes	
63.7(e)(1).....	Yes		
63.7(e)(2).....	Yes		
63.7(e)(3).....	No		Subpart CC specifies test methods and procedures.
63.7(e)(4).....	Yes		
63.7(f).....	No		Subpart CC specifies applicable methods and provides alternatives.
63.7(g).....		No	Performance test reporting specified in § 63.654(d).
63.7(h)(1).....	Yes		
63.7(h)(2).....	Yes		
63.7(h)(3).....	Yes		Yes, except site- specific test plans shall not be required, and where § 63.7(g)(3) specifies submittal by the date the site- specific test plan is due, the date shall be 90 days prior to the notification of compliance status report in § 63.654(d).
63.7(h)(4).....	No		
63.7(h)(5).....	Yes		
63.8(a).....		No	
63.8(b)(1).....			
Yes 63.8(b)(2).....	No		Subpart CC specifies locations to conduct monitoring.
63.8(b)(3).....	Yes		
63.8(c)(1)(i).....	Yes		
63.8(c)(1)(ii).....	No		Addressed by periodic reports in § 63.654(e) of subpart CC.
63.8(c)(1)(iii).....	Yes		
63.8(c)(2).....	Yes		
63.8(c)(3).....	Yes		Except that verification of operational status shall, at a minimum, include completion of the manufacturer's written

			specifications or recommendations for installation, operation, and calibration of the system or other written procedures that provide adequate assurance that the equipment would monitor accurately.
63.8(c)(4).....	No		Subpart CC specifies monitoring frequency in § 63.641 and § 63.654(g)(3) of subpart CC.
63.8(c)(5)-63.8(c)(8).....	No		
63.8(d).....		No	
63.8(e).....		No	
63.8(f)(1).....	Yes		
63.8(f)(2).....	Yes		
63.8(f)(3).....	Yes		
63.8(f)(4)(i).....	No		Timeframe for submitting request is specified in § 63.654(f)(4) of subpart CC.
63.8(f)(4)(ii).....	Yes		
63.8(f)(4)(iii).....	No		
63.8(f)(5)(i).....	Yes		
63.8(f)(5)(ii).....	No		
63.8(f)(5)(iii).....	Yes		
63.8(f)(6).....	No		Subpart CC does not require continuous emission monitors.
63.8(g).....		No	Subpart CC specifies data reduction procedures in § 63.654(h)(3).
63.9(a).....		Yes	Except that the owner or operator does not need to send a copy of each notification submitted to the Regional Office of the EPA as stated in § 63.9(a)(4)(ii).
63.9(b)(1)(i).....	No		Specified in § 63.654(d)(2) of subpart CC.
63.9(b)(1)(ii).....	No		
63.9(b)(2).....	No		An initial notification report is not required under subpart CC.
63.9(b)(3).....	No		
63.9(b)(4).....	Yes		Except that the notification in § 63.9(b)(4)(i) shall be submitted at the time specified in § 63.654(d)(2) of subpart CC.
63.9(b)(5).....	Yes		Except that the notification in § 63.9(b)(5) shall be submitted at the time specified in § 63.654(d)(2) of subpart CC.
63.9(c).....		Yes	
63.9(d).....		Yes	
63.9(e).....		No	
63.9(f).....	No		
63.9(g).....		No	

63.9(h).....		No	Subpart CC § 63.652(d) specifies notification of compliance status report requirements.
63.9(i).....	Yes		
63.9(j).....	No		
63.10(a).....	Yes		
63.10(b)(1).....	No		§ 63.644(d) of subpart CC specifies record retention requirements.
63.10(b)(2)(i).....	Yes		
63.10(b)(2)(ii).....	Yes		
63.10(b)(2)(iii).....	No		
63.10(b)(2)(iv).....	Yes		
63.10(b)(2)(v).....	Yes		
63.10(b)(2)(vi)-(ix).....	No		
63.10(b)(2)(x).....	Yes		
63.10(b)(2)(xii)-(xiv).....	No		
63.10(b)(3).....	No		
63.10(c).....	No		
63.10(d)(1).....	No		
63.10(d)(2).....	No		§ 63.654(d) of subpart CC specifies performance test reporting.
63.10(d)(3).....	No		
63.10(d)(4).....	Yes		
63.10(d)(5)(i).....	Yes[b]		Except that reports required by § 63.10(d)(5)(i) may be submitted at the same time as periodic reports specified in § 63.654(e) of subpart CC.
63.10(d)(5)(ii).....	Yes		Except that actions taken during a startup, shutdown, or malfunction that are not consistent with the startup, shutdown, and malfunction plan do not need to be reported within 2 and 7 days of commencing and completing the action, respectively, but must be included in the next periodic report.
63.10(e).....	No		
63.10(f).....		Yes	
63.11-63.15.....	Yes		

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[a] Wherever subpart A specifies ``postmark'' dates, submittals may be sent by methods other than the U.S. Mail (e.g., by fax or courier). Submittals shall be sent by the specified dates, but a postmark is not required.
[b] The plan, and any records or reports of startup, shutdown, and malfunction do not apply to Group 2 emission points.

Table 7 - Fraction Measured (Fm), Fraction Emitted (Fe), and Fraction Removed (Fr) for HAP Compounds in Wastewater Streams

Chemical name	CAS No.[a]	Fm	Fe	Fr
Benzene	71432	1.00	0.80	0.99
Biphenyl	92524	0.86	0.45	0.99
Butadiene (1,3-)	106990	1.00	0.98	0.99
Carbon disulfide	75150	1.00	0.92	0.99
Cumene	98828	1.00	0.88	0.99
Dichloroethane (1,2-) (Ethylene dichloride)	107062	1.00	0.64	0.99
Ethylbenzene	100414	1.00	0.83	0.99
Hexane	110543	1.00	1.00	0.99
Methanol	67561	0.85	0.17	0.31
Methyl ethyl ketone (2-Butanone)	78933	0.99	0.48	0.95
Methyl isobutyl ketone (Hexone)	108101	0.98	0.53	0.99
Methyl tert-butyl ether	1634044	1.00	0.57	0.99
Naphthalene	91203	0.99	0.51	0.99
Trimethylpentane (2,2,4-)	540841	1.00	1.00	0.99
Xylene (m-)	108383	1.00	0.82	0.99
Xylene (o-)	95476	1.00	0.79	0.99
Xylene (p-)	106423	1.00	0.82	0.99

[a] CAS numbers refer to the Chemical Abstracts Service registry number assigned to specific compounds, isomers, or mixtures of compounds.

Table 8 - Valve Monitoring Frequency for Phase III

Performance level Leaking valves [a] (%)	Valve monitoring frequency
>=4	Monthly or QIP.[b]
<4	Quarterly.
<3	Semiannual.
<2	Annual.

[a] Percent leaking valves is calculated as a rolling average of two consecutive monitoring periods.
[b] QIP=Quality improvement program. Specified in § 63.175 of subpart H of this part.

Table 9 - Valve Monitoring Frequency for Alternative

Performance level Leaking valves [a] (%)	Valve monitoring frequency under § 63.649 alternative
>=5.....	Monthly or QIP.[b]
<5.....	Quarterly.
<4.....	Semiannual.
<3.....	Annual.

[a] Percent leaking valves is calculated as a rolling average of two consecutive monitoring periods.
[b] QIP=Quality improvement program. Specified in § 63.175 of subpart H of this part.

Table 10 - Miscellaneous Process Vents - Monitoring, Record keeping and Reporting Requirements for Complying With 98 Weight-Percent Reduction of Total Organic HAP Emissions or a Limit of 20 Parts Per Million by Volume

Control device	Parameters to be monitored[a]	Record keeping and reporting requirements for monitored parameters
Thermal incinerator.....	Firebox temperature[b] (63.644(a)(1)(i))	1. Continuous records[c] 2. Record and report the firebox temperature averaged over the full period of the performance test - NCS[d]. 3. Record the daily average firebox temperature for each operating day[e]. 4. Report all daily average temperatures that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected[f] - PR[g].
Catalytic incinerator.....	Temperature upstream and downstream of the catalyst bed (63.644(a)(1)(ii))	1. Continuous records[c]. 2. Record and report the upstream and downstream temperatures and the temperature difference across the catalyst bed averaged over the full period of the performance test - NCS[d]. 3. Record the daily average upstream temperature and temperature difference across the catalyst bed for each operating day[e].

		4. Report all daily average upstream temperatures that are outside the range established in the NCS or operating permit - PR[g]. 5. Report all daily average temperature differences across the catalyst bed that are outside the range established in the NCS or operating permit - PR[g]. 6. Report all operating days when insufficient monitoring data are collected[f].
Boiler or process heater with a design heat capacity less than 44 megawatts where the vent stream is not introduced into the flame zone[h,i].	Firebox temperature[b] (63.644(a)(4)).	1. Continuous records[c]. 2. Record and report the firebox temperature averaged over the full period of the performance test - NCS[d]. 3. Record the daily average firebox temperature for each operating day[e]. 4. Report all daily average firebox temperatures that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected[f] - PR[g].
Flare.....	Presence of a flame at the pilot light (63.644(a)(2))	1. Hourly records of whether the monitor was continuously operating and whether a pilot flame was continuously present during each hour. 2. Record and report the presence of a flame at the pilot light over the full period of the compliance determination - NCS[d]. 3. Record the times and durations of all periods when all pilot flames for a flare are absent or the monitor is not operating. 4. Report the times and durations of all periods when all pilot flames for a flare are absent or the monitor is not operating.
All control devices.....	Presence of flow diverted to the atmosphere from the control device [63.644(c)(1)] or	1. Hourly records of whether the flow indicator was operating and whether flow was detected at any time during each hour. 2. Record and report the times and durations of all periods when the vent stream is diverted through a bypass line or the monitor is not operating - PR[g].
	Monthly inspections of	1. Records that monthly inspections were

	sealed valves [63.644(c)(2)]	performed. 2. Record and report all monthly inspections that show the valves are not closed or the seal has been changed - PR[g].

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[a] Regulatory citations are listed in parentheses.
[b] Monitor may be installed in the firebox or in the ductwork immediately downstream of the firebox before any substantial heat exchange is encountered.
[c] ``Continuous records'' is defined in § 63.641.
[d] NCS = Notification of compliance status report described in § 63.654.
[e] The daily average is the average of all recorded parameter values for the operating day. If all recorded values during an operating day are within the range established in the NCS or operating permit, a statement to this effect can be recorded instead of the daily average.
[f] When a period of excess emission is caused by insufficient monitoring data, as described in § 63.654(g)(6)(i)(C) or (D), the duration of the period when monitoring data were not collected shall be included in the Periodic Report.
[g] PR = Periodic Reports described in § 63.654(g).
[h] No monitoring is required for boilers and process heaters with a design heat capacity >=44 megawatts or for boilers and process heaters where all vent streams are introduced into the flame zone. No record keeping or reporting associated with monitoring is required for such boilers and process heaters.
[i] Process vents that are routed to refinery fuel gas systems are not regulated under this subpart. No monitoring, record keeping, or reporting is required for boilers and process heaters that combust refinery fuel gas.

13. Alternative Leak Detection and Repair Monitoring Plan

[The following emissions units contained in this permit are subject to the alternate leak detection and repair monitoring plan.: B028, P017, P018, P023, P025, P027, P028, and P040.]

The permittee has submitted an alternative leak detection and repair (LDAR) monitoring plan pursuant to OAC rule 3745-21-09(T)(4) and 40 CFR Part 63, Subpart CC. In accordance with OAC rule 3745-21-09(B), the permittee shall submit a request for revision of the Ohio State Implementation Plan within 6 months of issuance of this permit. The permittee's alternative LDAR monitoring plan includes regulations in 40 CFR Part 60, Subparts VV and GGG; 40 CFR Part 61, Subpart V; and 40 CFR Part 63, Subpart CC as follows:

§ **60.480 Applicability and designation of affected facility.**

(a)(1) The provisions of this subpart apply to existing and new facilities at Premcor Lima Refinery.

(b) [Not Applicable]

(c) [Not Applicable]

(2) The group of all equipment (defined in § 60.481) within a process unit is an affected facility.

(3) A compressor is an affected facility.

(d)(1) If an owner or operator applies for one or more of the exemptions in this paragraph, then the owner or operator shall maintain records as required in § 60.486(i).

(2) Any affected facility that has no equipment in VOC service is exempt from § 60.482.

§ **60.481 Definitions.**

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act or in subpart A of part 60, and the following terms shall have the specific meanings given them.

Closed vent system means a system that is not open to the atmosphere and that is composed of hard-piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process.
Connector means flanged, screwed, welded, or other joined fittings used to connect two pipe lines or a pipe line and a piece of process equipment.

Control device means an enclosed combustion device, vapor recovery system, or flare.

Distance piece means an open or enclosed casing through which the piston rod travels, separating the compressor cylinder from the crankcase.

Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Ductwork means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard- piping is not ductwork.

Equipment means each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in VOC service. For the purposes of record keeping and reporting only, compressors are considered equipment.

First attempt at repair means to take rapid action for the purpose of stopping or reducing leakage of organic material to atmosphere using best practices.

Fuel gas means gases that are combusted to derive useful work or heat.

Fuel gas system means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use as fuel gas in combustion devices or in-process combustion equipment, such as furnaces and gas turbines, either singly or in combination.

Hard-piping means pipe or tubing that is manufactured and properly installed using good engineering judgement and standards such as ASME B31.3, Process Piping (available from the American Society of Mechanical Engineers, PO Box 2900, Fairfield, NJ 07007-2900).

In benzene service means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 10 percent benzene by weight.

In gas/vapor service means that the piece of equipment contains process fluid that is in the gaseous state at operating conditions.

In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.

In hydrogen service means that a compressor contains a process fluid that meets the conditions specified in § 61.482-1(e).

In light liquid service means that the piece of equipment contains a liquid that meets the conditions specified in § 60.485(e).

In-situ sampling systems means non-extractive samplers or in-line samplers.

In vacuum service means that equipment is operating at an internal pressure which is at least 0.7 psia below ambient pressure.

In VOC service means that the piece of equipment contains or contacts a process fluid that is at least 10 percent VOC by weight. (The provisions of § 60.485(d) specify how to determine that a piece of equipment is not in VOC service.)

Liquids dripping means any visible leakage from the seal including spraying, misting, clouding, and ice formation.

Open-ended valve or line means any valve, except safety relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

Petroleum means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

Petroleum refinery means any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through the distillation of petroleum, or through the redistillation, cracking, or reforming of unfinished petroleum derivatives.

Pressure release means the emission of materials resulting from system pressure being greater than set pressure of the pressure relief device.

Process unit means components assembled to produce intermediate or final products from petroleum, unfinished petroleum derivatives, or other intermediates; a process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a process unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not process unit shutdowns.

Quarter means a 3-month period.

Repaired means that equipment is adjusted, or otherwise altered, in order to eliminate a leak as indicated by one of the following: an instrument reading of 10,000 ppm or greater, indication of liquids dripping, or indication by a sensor that a seal or barrier fluid system has failed.

Sampling connection system means an assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take non-routine grab samples is not considered a sampling connection system.

Sensor means a device that measures a physical quantity or the change in a physical quantity such as temperature, pressure, flow rate, pH, or liquid level.

Volatile organic compounds or VOC means, for the purposes of this subpart, any reactive organic compounds as defined in the Clean Air Act (§ 60.2) Definitions.

§ **60.482-1 Standards: General.**

(a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§ 60.482-1 through 60.482-10 or § 60.480(e) for all equipment within 180 days of initial startup.

(b) Compliance with § 60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in § 60.485.

(c)(1) An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of § 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, and 60.482-10 as provided in § 60.484.

(2) If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of § 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, or 60.482-10, an owner or operator shall comply with the requirements of that determination.

(d) Equipment that is in vacuum service is excluded from the requirements of § 60.482-2 to 60.482-10 if it is identified as required in § 60.486(e)(5).

(e)(1) Compressors in hydrogen service are exempt from the requirements of § 60.482-3 if an owner or operator demonstrates that a compressor is in hydrogen service.

(2) Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume.

(3)(i) An owner or operator may use engineering judgment rather than procedures in paragraph (e)(2) of this section to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures in paragraph (e)(2) shall be used to resolve the disagreement.

(ii) If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures in paragraph (e)(2).

(f) An owner or operator may use the following provision in addition to § 60.485(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 °C as determined by ASTM Method D86-78, 82, 90, 95, or 96.

§ **60.482-2 Standards: Pumps in light liquid service.**

(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in §60.485(b), except as provided in § 60.482-1(c) and paragraphs (d), (e), and (f) of this section.

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

(b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(2) If there are indications of liquids dripping from the pump seal, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a), *Provided* the following requirements are met:

(1) Each dual mechanical seal system is --

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(ii) Equipment with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of § 60.482-10; or

(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(2) The barrier fluid system is in heavy liquid service or is not in VOC service.

(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(5)(i) Each sensor as described in paragraph (d)(3) is checked daily or is equipped with an audible alarm, and

(ii) The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(6)(i) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in paragraph (d)(5)(ii), a leak is detected.

(ii) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9.

(iii) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) Any pump that is designated, as described in § 60.486(e)(1) and (2), for no detectable emission, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of this section if the pump:

(1) Has no externally actuated shaft penetrating the pump housing,

(2) Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in § 60.485(c), and

(3) Is tested for compliance with paragraph (e)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

(f) If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of § 60.482-10, it is exempt from paragraphs (a) through (e) of this section.

(g) Any pump that is designated, as described in § 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) of this section if:

(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and

(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (c) of this section if a leak is detected.

§ **60.482-3 Standards: Compressors.**

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in § 60.482-1(c) and paragraph (h) and (i) of this section.

(b) Each compressor seal system as required in paragraph (a) shall be:

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of § 60.482-10; or

(3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.

(d) Each barrier fluid system as described in paragraph (a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(e)(1) Each sensor as required in paragraph (d) shall be checked daily or shall be equipped with an audible alarm.

(2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (e)(2), a leak is detected.

(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(h) A compressor is exempt from the requirements of paragraphs (a) and (b) of this section, if it is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of § 60.482-10, except as provided in paragraph (i) of this section.

(i) Any compressor that is designated, as described in § 60.486(e) (1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a)-(h) if the compressor:

(1) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in § 60.485(c); and

(2) Is tested for compliance with paragraph (i)(1) of this section initially upon designation, annually, and at other times requested by the Administrator.

(j) Any reciprocating compressor in a process unit is exempt from § 60.482(a), (b), (c), (d), (e), and (h).

§ **60.482-4 Standards: Pressure relief devices in gas/vapor service.**

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in § 60.485(c).

(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in § 60.482-9.

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in § 60.485(c).
(c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in § 60.482-10 is exempted from the requirements of paragraphs (a) and (b) of this section.

(d)(1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section.

(2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in § 60.482-9.

§ **60.482-5 Standards: Sampling connection systems.**

(a) Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in § 60.482-1(c). Gases displaced during filling of the sample container are not required to be collected or captured.

(b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall comply with the requirements specified in paragraphs (b)(1) through (4) of this section:

(1) Return the purged process fluid directly to the process line; or

(2) Collect and recycle the purged process fluid to a process; or

(3) Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of § 60.482-10; or

(4) Collect, store, and transport the purged process fluid to any of the following systems or facilities:

(i) A waste management unit as defined in 40 CFR 63.111, if the waste management unit is subject to, and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams;

(ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or

(iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261.

(c) In situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

§ **60.482-6 Standards: Open-ended valves or lines.**

(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in § 60.482-1(c).

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) at all other times.

(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b) and (c) of this section.

(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section.

§ **60.482-7 Standards: Valves in gas/vapor service and in light liquid service.**

(a) Each valve shall be monitored monthly to detect leaks by the methods specified in § 60.485(b) and shall comply with paragraphs (b) through (e), except as provided in paragraphs (f), (g), and (h), § 60.483-1, 2, and § 60.482-1(c).

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

(d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in § 60.482-9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) First attempts at repair include, but are not limited to, the following best practices where practicable:

(1) Tightening of bonnet bolts;

(2) Replacement of bonnet bolts;

(3) Tightening of packing gland nuts;

(4) Injection of lubricant into lubricated packing.

(f) Any valve that is designated, as described in § 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) if the valve:

(1) Has no external actuating mechanism in contact with the process fluid,

(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in § 60.485(c), and

(3) Is tested for compliance with paragraph (f)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

(g) Any valve that is designated, as described in § 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) if:

(1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a), and

(2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(h) Any valve that is designated, as described in § 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) if:

(1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

(2) The process unit within which the valve is located either becomes an affected facility through 40 CFR § 60.14 or § 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor, and
(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

§ 60.482-8 Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors.

(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures:

(1) The owner or operator shall monitor the equipment within 5 days by the method specified in § 60.485(b) and shall comply with the requirements of paragraphs (b) through (d) of this section.

(2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9.

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) First attempts at repair include, but are not limited to, the best practices described under § 60.482-7(e).

§ **60.482-9 Standards: Delay of repair.**

(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.

(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

(c) Delay of repair for valves will be allowed if:

(1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with § 60.482-10.

(d) Delay of repair for pumps will be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

§ **60.482-10 Standards: Closed vent systems and control devices.**

(a) Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section.

(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.

(c) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °C.

(d) Flares used to comply with this subpart shall comply with the requirements of 40 CFR §60.18.

(e) Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

(f) Except as provided in paragraphs (i) through (k) of this section, each closed vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (f)(2) of this section.

(1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (f)(1)(i) and (f)(1)(ii) of this section:

(i) Conduct an initial inspection according to the procedures in § 60.485(b); and

(ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:

(i) Conduct an initial inspection according to the procedures in § 60.485(b); and

(ii) Conduct annual inspections according to the procedures in § 60.485(b).

(g) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (h) of this section.

(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(2) Repair shall be completed no later than 15 calendar days after the leak is detected.

(h) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

(i) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section.

(j) Any parts of the closed vent system that are designated, as described in paragraph (l)(1) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (j)(1) and (j)(2) of this section:

(1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (f)(1)(i) or (f)(2) of this section; and

(2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

(k) Any parts of the closed vent system that are designated, as described in paragraph (l)(2) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (k)(1) through (k)(3) of this section:

(1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

(2) The process unit within which the closed vent system is located becomes an affected facility through 40 CFR § 60.14 or 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and

(3) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.

(l) The owner or operator shall record the information specified in paragraphs (l)(1) through (l)(5) of this section.

(1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

(2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

(3) For each inspection during which a leak is detected, a record of the information specified in § 60.486(c).

(4) For each inspection conducted in accordance with § 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(5) For each visual inspection conducted in accordance with paragraph (f)(1)(ii) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(m) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

(n) Each surge control vessel or bottoms receiver in benzene service, whose vapors are not routed back to the process and that meets the conditions specified in table 1 or table 2 of 40 CFR Part 61, Subpart V, shall be equipped with a closed-vent system capable of capturing and transporting any leakage from the vessel back to the process or to a control device.

§ **60.483-1 Alternative standards for valves -- allowable percentage of valves leaking.**

(a) An owner or operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.

(b) The following requirements shall be met if an owner or operator wishes to comply with an allowable percentage of valves leaking:

(1) An owner or operator must notify the Administrator that the owner or operator has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in § 60.487(d).

(2) A performance test as specified in paragraph (c) of this section shall be conducted initially upon designation, annually, and at other times requested by the Administrator.

(3) If a valve leak is detected, it shall be repaired in accordance with § 60.482-7(d) and (e).

(c) Performance tests shall be conducted in the following manner:

(1) All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in § 60.485(b).

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3) The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the affected facility.

(d) Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent.

§ **60.483-2 Alternative standards for valves -- skip period leak detection and repair.**

(a)(1) An owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (b)(2) and (3) of this section.

(2) An owner or operator must notify the Administrator before implementing one of the alternative work practices, as specified in § 60.487(d).

(b)(1) An owner or operator shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in § 60.482-7.

(2) After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(3) After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(4) If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in § 60.482-7 but can again elect to use this section.

(5) The percent of valves leaking shall be determined by dividing the sum of valves found leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements of this section.

(6) An owner or operator must keep a record of the percent of valves found leaking during each leak detection period.

§ 60.484 Equivalence of means of emission limitation.

(a) Each owner or operator subject to the provisions of this subpart may apply to the Administrator for determination of equivalence for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart.

(b) Determination of equivalence to the equipment, design, and operational requirements of this subpart will be evaluated by the following guidelines:

(1) Each owner or operator applying for an equivalence determination shall be responsible for collecting and verifying test data to demonstrate equivalence of means of emission limitation.

(2) The Administrator will compare test data for the means of emission limitation to test data for the equipment, design, and operational requirements.

(3) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the equipment, design, and operational requirements.

(c) Determination of equivalence to the required work practices in this subpart will be evaluated by the following guidelines:

(1) Each owner or operator applying for a determination of equivalence shall be responsible for collecting and verifying test data to demonstrate equivalence of an equivalent means of emission limitation.

(2) For each affected facility for which a determination of equivalence is requested, the emission reduction achieved by the required work practice shall be demonstrated.

(3) For each affected facility, for which a determination of equivalence is requested, the emission reduction achieved by the equivalent means of emission limitation shall be demonstrated.

(4) Each owner or operator applying for a determination of equivalence shall commit in writing to work practice(s) that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practice.

(5) The Administrator will compare the demonstrated emission reduction for the equivalent means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (c)(4).

(6) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the required work practice.

(d) An owner or operator may offer a unique approach to demonstrate the equivalence of any equivalent means of emission limitation.

(e)(1) After a request for determination of equivalence is received, the Administrator will publish a notice in the Federal Register and provide the opportunity for public hearing if the Administrator judges that the request may be approved.

(2) After notice and opportunity for public hearing, the Administrator will determine the equivalence of a means of emission limitation and will publish the determination in the Federal Register.

(3) Any equivalent means of emission limitations approved under this section shall constitute a required work practice, equipment, design, or operational standard within the meaning of section 111(h)(1) of the Clean Air Act.

(f)(1) Manufacturers of equipment used to control equipment leaks of VOC may apply to the Administrator for determination of equivalence for any equivalent means of emission limitation that achieves a reduction in emissions of VOC achieved by the equipment, design, and operational requirements of this subpart.

(2) The Administrator will make an equivalence determination according to the provisions of paragraphs (b), (c), (d), and (e) of this section.

§ **60.485 Test methods and procedures.**

(a) In conducting the performance tests required in 40 CFR § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in 40 CFR § 60.8(b).

(b) The owner or operator shall determine compliance with the standards in § 60.482, 60.483, and 60.484 as follows:

(1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used:

(i) Zero air (less than 10 ppm of hydrocarbon in air); and

(ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.

(c) The owner or operator shall determine compliance with the no detectable emission standards in § 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows:

(1) The requirements of paragraph (b) shall apply.

(2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) The owner or operator shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

(1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.

(2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.

(3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d) (1) and (2) of this section shall be used to resolve the disagreement.

(e) The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply:

(1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 °C (1.2 in. H2O at 68 °F). Standard reference texts or ASTM D2879-83, 96, or 97 shall be used to determine the vapor pressures.

(2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H2O at 68 °F) is equal to or greater than 20 percent by weight.

(3) The fluid is a liquid at operating conditions.

(f) Samples used in conjunction with paragraphs (d), (e), and (g) of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

(g) The owner or operator shall determine compliance with the standards of flares as follows:

(1) Method 22 shall be used to determine visible emissions.

(2) A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.

(3) The maximum permitted velocity for air assisted flares shall be computed using the following equation:

$$V_{max} = K_1 + K_2 H_T$$

where:

Vmax = Maximum permitted velocity, m/sec (ft/sec)

HT = Net heating value of the gas being combusted, MJ/scm (Btu/scf).

K1 = 8.706 m/sec (metric units)

= 28.56 ft/sec (English units)

K2 = 0.7084 m^4/(MJ-sec) (metric units)

= 0.087 ft^4/(Btu-sec) (English units)

(4) The net heating value (HT) of the gas being combusted in a flare shall be computed using the following equation:

$$H_T = K \sum_{i=1}^{n} C_i H_i$$

where:

K = Conversion constant, 1.740×10^7 (g-mole)(MJ)/ (ppm-scm-kcal) (metric units)

= 4.674×10^8 [(g-mole)(Btu)/(ppm-scf-kcal)] (English units)

Ci = Concentration of sample component "i," ppm

Hi = net heat of combustion of sample component "i" at 25 °C and 760 mm Hg (77 °F and 14.7 psi), kcal/g-mole

(5) Method 18 and ASTM D2504-67, 77, or 88 (Reapproved 1993) shall be used to determine the concentration of sample component "i."

(6) ASTM D2382-76 or 88 or D4809-95 shall be used to determine the net heat of combustion of component "i" if published values are not available or cannot be calculated.

(7) Method 2, 2A, 2C, or 2D, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

§ **60.486 Record keeping requirements.**

(a)(1) Each owner or operator subject to the provisions of this subpart shall comply with the record keeping requirements of this section.

(2) An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the record keeping requirements for these facilities in one record keeping system if the system identifies each record by each facility.

(b) When each leak is detected as specified in § 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply:

(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in § 60.482-7(c) and no leak has been detected during those 2 months.

(3) The identification on equipment except on a valve, may be removed after it has been repaired.

(c) When each leak is detected as specified in § 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

(1) The instrument and operator identification numbers and the equipment identification number.

(2) The date the leak was detected and the dates of each attempt to repair the leak.

(3) Repair methods applied in each attempt to repair the leak.

(4) "Above 10,000" if the maximum instrument reading measured by the methods specified in § 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.

(5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

(7) The expected timing of successful repair of the leak if a leak is not repaired within 15 days.

(8) Dates of process unit shutdowns that occur while the equipment is unrepaired.

(9) The date of successful repair of the leak.

(d) The following information pertaining to the design requirements for closed vent systems and control devices described in § 60.482-10 shall be recorded and kept in a readily accessible location:

(1) Detailed schematics, design specifications, and piping and instrumentation diagrams.

(2) The dates and descriptions of any changes in the design specifications.

(3) A description of the parameter or parameters monitored, as required in § 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(4) Periods when the closed vent systems and control devices required in § 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame.

(5) Dates of startups and shutdowns of the closed vent systems and control devices required in § 60.482-2, 60.482-3, 60.482-4, and 60.482-5.

(e) The following information pertaining to all equipment subject to the requirements in § 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for equipment subject to the requirements of this subpart.

(2)(i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of § 60.482-2(e), 60.482-3(i) and 60.482-7(f).

(ii) The designation of equipment as subject to the requirements of § 60.482-2(e), § 60.482-3(i), or § 60.482-7(f) shall be signed by the owner or operator.

(3) A list of equipment identification numbers for pressure relief devices required to comply with § 60.482-4.

(4)(i) The dates of each compliance test as required in § 60.482-2(e), 60.482-3(i), 60.482-4, and 60.482-7(f).

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

(5) A list of identification numbers for equipment in vacuum service.

(f) The following information pertaining to all valves subject to the requirements of § 60.482-7(g) and (h) and to all pumps subject to the requirements of § 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump.

(2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

(g) The following information shall be recorded for valves complying with § 60.483-2:

(1) A schedule of monitoring.

(2) The percent of valves found leaking during each monitoring period.

(h) The following information shall be recorded in a log that is kept in a readily accessible location:

(1) Design criterion required in § 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and

(2) Any changes to this criterion and the reasons for the changes.

(i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in § 60.480(b):

(1) An analysis demonstrating the design capacity of the affected facility,

(2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids, and

(3) An analysis demonstrating that equipment is not in VOC service.

(j) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

(k) The provisions of 40 CFR § 60.7 (b) and (d) do not apply to affected facilities subject to this subpart.

§ **60.487 Reporting requirements.**

(a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning six months after the initial startup date, and March 1 and August 29 annually.

(b) The initial semiannual report to the Administrator shall include the following information:

(1) Process unit identification.

(2) Number of valves subject to the requirements of § 60.482-7, excluding those valves designated for no detectable emissions under the provisions of § 60.482-7(f).

(3) Number of pumps subject to the requirements of § 60.482-2, excluding those pumps designated for no detectable emissions under the provisions of § 60.482-2(e) and those pumps complying with § 60.482-2(f).

(4) Number of compressors subject to the requirements of § 60.482-3, excluding those compressors designated for no detectable emissions under the provisions of § 60.482-3(i) and those compressors complying with § 60.482-3(h).

(c) All semiannual reports to the Administrator shall include the following information, summarized from the information in § 60.486:

(1) Process unit identification.

(2) For each month during the semiannual reporting period,

(i) Number of valves for which leaks were detected as described in § 60.482(7)(b) or § 60.483-2,

(ii) Number of valves for which leaks were not repaired as required in § 60.482-7(d)(1),

(iii) Number of pumps for which leaks were detected as described in § 60.482-2(b) and (d)(6)(i),

(iv) Number of pumps for which leaks were not repaired as required in § 60.482-2(c)(1) and (d)(6)(ii),

(v) Number of compressors for which leaks were detected as described in § 60.482-3(f),

(vi) Number of compressors for which leaks were not repaired as required in § 60.482-3(g)(1), and

(vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

(3) Dates of process unit shutdowns which occurred within the semiannual reporting period.

(4) Revisions to items reported according to paragraph (b) if changes have occurred since the initial report or subsequent revisions to the initial report.

(d) An owner or operator electing to comply with the provisions of § 60.483-1 or 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.

(e) An owner or operator shall report the results of all performance tests in accordance with 40 CFR § 60.8 of the General Provisions. The provisions of 40 CFR § 60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.

(f) The requirements of paragraphs (a) through (c) of this section remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of paragraphs (a) through (c) of this section, provided that they comply with the requirements established by the State.

14. Subpart DD -- National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations

§63.680 Applicability and designation of affected sources.

(a) The provisions of this subpart apply to the owner and operator of a plant site for which both of the conditions specified in paragraphs (a)(1) and (a)(2) of this section are applicable. If either one of these

conditions does not apply to the plant site, then the owner and operator of the plant site are not subject to the provisions of this subpart.

(1) The plant site is a major source of hazardous air pollutant (HAP) emissions as defined in 40 CFR 63.2.

(2) At the plant site is located one or more of operations that receives off-site materials as specified in paragraph (b) of this section and the operations is one of the following waste management operations or recovery operations as specified in paragraphs (a)(2)(i) through (a)(2)(vi) of this section.

(i) A waste management operation that receives off-site material and the operation is regulated as a hazardous waste treatment, storage, and disposal facility (TSDF) under either 40 CFR part 264 or part 265.

(ii) A waste management operation that treats wastewater which is an off-site material and the operation is exempted from regulation as a hazardous waste treatment, storage, and disposal facility under 40 CFR 264.1(g)(6) or 40 CFR 265.1(c)(10).

(iii) A waste management operation that treats wastewater which is an off-site material and the operation meets both of the following conditions:

(A) The operation is subject to regulation under either section 402 or 307(b) of the Clean Water Act but is not owned by a "state" or "municipality" as defined by section 502(3) and 502(4), respectively, of the Clean Water Act; and

(B) The treatment of wastewater received from off-site is the predominant activity performed at the plant site.

(iv) A recovery operation that recycles or reprocesses hazardous waste which is an off-site material and the operation is exempted from regulation as a hazardous waste treatment, disposal, and storage facility under 40 CFR 264.1(g)(2) or 40 CFR 265.1(c)(6).

(v) A recovery operation that recycles or reprocesses used solvent which is an off-site material and the operation is not part of a chemical, petroleum, or other manufacturing process that is required to use air emission controls by another subpart of 40 CFR part 63 or 40 CFR part 61.

(vi) A recovery operation that re-refines or reprocesses used oil which is an off-site material and the operation is regulated under 40 CFR 279 subpart F -- Standards for Used Oil Processors and Refiners.

(b) For the purpose of implementing this subpart, an off-site material is a material that meets all of the criteria specified in paragraph (b)(1) of this section but is not one of the materials specified in paragraph (b)(2) of this section.

(1) An off-site material is a material that meets all of the criteria specified in paragraphs (b)(1)(i) through (b)(1)(iii) of this section. If any one of these criteria do not apply to the material, then the material is not an off-site material subject to this subpart.

(i) The material is a waste, used oil, or used solvent as defined in §63.681 of this subpart;

(ii) The waste, used oil, or used solvent is not produced or generated within the plant site, but the material is delivered, transferred, or otherwise moved to the plant site from a location outside the boundaries of the plant site; and

(iii) The waste, used oil, or used solvent contains one or more of the hazardous air pollutants (HAP) listed in Table 1 of this subpart based on the composition of the material at the point-of-delivery, as defined in §63.681 of this subpart.

(2) For the purpose of implementing this subpart, the following materials are not off-site materials:

(i) Household waste as defined in 40 CFR 258.2.

(ii) Radioactive mixed waste managed in accordance with all applicable regulations under Atomic Energy Act and Nuclear Waste Policy Act authorities.

(iii) Waste that is generated as a result of implementing remedial activities required under the Resource Conservation and Recovery Act (RCRA) corrective action authorities (RCRA sections 3004(u), 3004(v), or 3008(h)), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) authorities, or similar Federal or State authorities.

(iv) Waste containing HAP that is generated by residential households (e.g., old paint, home garden pesticides) and subsequently is collected as a community service by government agencies, businesses, or other organizations for the purpose of promoting the proper disposal of this waste.

(v) Waste that is transferred from a chemical manufacturing plant or other facility for which both of the following conditions apply to the waste:

(A) The management of the waste at the facility is required either under part 63 subpart F -- National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry or under another subpart in 40 CFR part 63 to meet the air emission control standards for process wastewater specified in 40 CFR 63.132 through 63.147; and

(B) The owner or operator of the facility from which the waste is transferred has complied with the provisions of 40 CFR 63.132(g)(1)(ii) and (g)(2).

(vi) Waste that is transferred from a chemical manufacturing plant, petroleum refinery, or coke by-product recovery plant which is subject to 40 CFR Part 61, Subpart FF -- National Emission Standards for Benzene Waste Operations, and for which both of the following conditions apply to the waste:

(A) The waste is generated at a facility that is not exempted under the provisions of 40 CFR 61.342(a) from meeting the air emission control standards of 40 CFR Part 61, Subpart FF; and

(B) The owner or operator of the facility from which the waste is transferred has complied with the provisions of 40 CFR 61.342(f)(2).

(vii) Ship ballast water pumped from a ship to an onshore wastewater treatment facility.

(viii) Hazardous waste that is stored for 10 days or less at a transfer facility in compliance with the provisions of 40 CFR 263.12.

(c) *Affected sources.* (1) *Off-site material management units.* For each operation specified in paragraphs (a)(2)(i) through (a)(2)(vi) of this section that is located at the plant site, the affected source is the entire group of off-site material management units associated with the operation. An off-site material management unit is a tank, container, surface impoundment, oil-water separator, organic-water separator, or transfer system used to manage off-site material. For the purpose of implementing the standards under this subpart, a unit that meets the definition of a tank or container but also is equipped with a vent that serves as a process vent for any of the processes listed in paragraphs (c)(2)(i) through (c)(2)(vi) of this section is not an off-site material management unit but instead is a process vent and is to be included in the appropriate affected source group under paragraph (c)(2) of this section. Examples of such a unit may include, but are not limited to, a distillate receiver vessel, a primary condenser, a bottoms receiver vessel, a surge control tank, a separator tank, and a hot well.

(2) *Process vents.* For each operation specified in paragraphs (a)(2)(i) through (a)(2)(vi) of this section that is located at the plant site, the affected source is the entire group of process equipment associated with the process vents for the processes listed in paragraphs (c)(2)(i) through (c)(2)(vi) of this section.

(i) Distillation process used for the treatment, recycling, or recovery of off-site material. Distillation means a process, either batch or continuous, separating one or more off-site material feed streams into two or more exit streams having different component concentrations from those in the feed stream or streams. The separation is achieved by the redistribution of the components between the liquid and vapor phases as they approach equilibrium within the distillation unit.

(ii) Fractionation process used for the treatment, recycling, or recovery of off-site material. Fractionation means a liquid mixture separation process or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

(iii) Thin-film evaporation process used for the treatment, recycling, or recovery of off-site material. Thin-film evaporation means a liquid mixture separation process or method that uses a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

(iv) Solvent extraction process used for the treatment, recycling, or recovery of off-site material. Solvent extraction means a separation process or method in which a solid or a solution is contacted with a liquid solvent (the material and the solvent being relatively insoluble in each other) to preferentially dissolve and transfer one or more components into the solvent.

(v) Steam stripping process used for the treatment, recycling, or recovery of off-site material. Steam stripping means a liquid mixture separation process or method in which vaporization of the volatile components of a liquid mixture occurs by the introduction of steam directly into the process.

(vi) Gas stripping process used for the treatment, recycling, or recovery of off-site material. Gas stripping means a desorption process or method used to transfer one or more volatile components from a liquid mixture into a gas stream either with or without the application of heat to the liquid. Packed towers, spray towers, and bubble-cap, sieve, or valve-type plate towers are examples of the process configurations used for contacting the gas and a liquid.

(3) *Equipment leaks.* For each operation specified in paragraphs (a)(2)(i) through (a)(2)(vi) of this section that is located at the plant site, the affected source is the entire group of equipment components for which each component meets all of the conditions specified in paragraphs (c)(3)(i) through (c)(3)(iii) of this section. If any one of these conditions do not apply to an equipment component, then that component is not part of the affected source for equipment leaks.

(i) The equipment component is a pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, or instrumentation system;

(ii) The equipment component contains or contacts off-site material having a total HAP concentration equal to or greater than 10 percent by weight; and

(iii) The equipment component is intended to operate for 300 hours or more during a calendar year in off-site material service, as defined in §63.681 of this subpart.

(d) *Facility-wide exemption.* The owner or operator of affected sources subject to this subpart is exempted from the requirements of §63.682 through 63.699 of this subpart in situations when the total annual quantity of the HAP that is contained in the off-site material received at the plant site is less than 1 megagram per year. For a plant site to be exempted under the provisions of this paragraph (d), the owner or operator must meet the requirements in paragraphs (d)(1) through (d)(3) of this section.

(1) The owner or operator must prepare an initial determination of the total annual HAP quantity in the off-site material received at the plant site. This determination is based on the total quantity of the HAP listed in Table 1 of this subpart as determined at the point-of-delivery for each off-site material stream.

(2) The owner or operator must prepare a new determination whenever the extent of changes to the quantity or composition of the off-site material received at the plant site could cause the total annual HAP quantity in the off-site material received at the plant site to exceed the limit of 1 megagram per year.

(3) The owner or operator must maintain documentation to support the owner's or operator's determination of the total annual HAP quantity in the off-site material received at the plant site. This documentation must include the basis and data used for determining the HAP content of the off-site material.

(e) *Compliance dates.* (1) *Existing sources.* The owner or operator of an affected source that commenced construction or reconstruction before October 13, 1994, must achieve compliance with the provisions of this subpart on or before the date specified in paragraph (e)(1)(i) or (e)(1)(ii) of this section as applicable to the affected source.

(i) For an affected source that commenced construction or reconstruction before October 13, 1994 and receives off-site material for the first time before February 1, 2000, the owner or operator of this affected source must achieve compliance with the provisions of the subpart on or before February 1, 2000 unless an extension has been granted by the Administrator as provided in 40 CFR 63.6(i).

(ii) For an affected source that commenced construction or reconstruction before October 13, 1994, but receives off-site material for the first time on or after February 1, 2000, the owner or operator of the affected source must achieve compliance with the provisions of this subpart upon the first date that the affected source begins to manage off-site material.

(2) *New sources.* The owner or operator of an affected source for which construction or reconstruction commences on or after October 13, 1994, must achieve compliance with the provisions of this subpart on or before July 1, 1996, or upon initial startup of operations, whichever date is later as provided in 40 CFR 63.6(b).

(f) The provisions of 40 CFR part 63, subpart A -- General Provisions that apply and those that do not apply to this subpart are specified in Table 2 of this subpart.

§63.681 Definitions.

All terms used in this subpart shall have the meaning given to them in this section, 40 CFR 63.2 of this part, and the Act.

Boiler means an enclosed combustion device that extracts useful energy in the form of steam and is not an incinerator or a process heater.

Closed-vent system means a system that is not open to the atmosphere and is composed of hard-piping, ductwork, connections, and, if necessary, fans, blowers, or other flow-inducing devices that conveys gas or vapor from an emission point to a control device.

Closure device means a cap, hatch, lid, plug, seal, valve, or other type of fitting that prevents or reduces air pollutant emissions to the atmosphere by blocking an opening in a cover when the device is secured in the closed position. Closure devices include devices that are detachable from the cover (e.g., a sampling port cap), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring-loaded pressure relief valve).

Container means a portable unit used to hold material. Examples of containers include but are not limited to drums, dumpsters, roll-off boxes, bulk cargo containers commonly known as "portable tanks" or "totes", cargo tank trucks, and tank rail cars.

Continuous record means documentation of data values measured at least once every 15 minutes and recorded at the frequency specified in this subpart.

Continuous recorder means a data recording device that either records an instantaneous data value at least once every 15 minutes or records 15-minutes or more frequent block averages.

Continuous seal means a seal that forms a continuous closure that completely covers the space between the edge of the floating roof and the wall of a tank. A continuous seal may be a vapor-mounted seal, liquid-mounted seal, or metallic shoe seal. A continuous seal may be constructed of fastened segments so as to form a continuous seal.

Control device means equipment used for recovering, removing, oxidizing, or destroying organic vapors. Examples of such equipment include but are not limited to carbon adsorbers, condensers, vapor incinerators, flares, boilers, and process heaters.

Cover means a device or system that provides a continuous barrier over the material managed in a off-site material management unit to prevent or reduce air pollutant emissions to the atmosphere. A cover may have openings needed for operation, inspection, sampling, maintenance, and repair of the unit provided that each opening is closed when not in use (e.g., access hatches, sampling ports). A cover may be a separate piece of equipment which can be detached and removed from the unit or a *cover* may be formed by structural features permanently integrated into the design of the unit.

Emission point means an individual tank, surface impoundment, container, oil-water or organic-water separator, transfer system, process vent, or enclosure.

Enclosure means a structure that surrounds a tank or container, captures organic vapors emitted from the tank or container, and vents the captured vapor through a closed vent system to a control device.

External floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a tank with no fixed roof.

Fixed roof means a cover that is mounted on a unit in a stationary position and does not move with fluctuations in the level of the liquid managed in the unit.

Flame zone means the portion of the combustion chamber in a boiler or process heater occupied by the flame envelope.

Floating roof means a cover consisting of a double deck, pontoon single deck, or internal floating cover which rests upon and is supported by the liquid being contained, and is equipped with a continuous seal.

Flow indicator means a device that indicates whether gas is flowing, or whether the valve position would allow gas to flow in a bypass line.

Hard-piping means pipe or tubing that is manufactured and properly installed in accordance with relevant standards and good engineering practices.

Hazardous air pollutants or *HAP* means the specific organic chemical compounds, isomers, and mixtures listed in Table 1 of this subpart.

Hazardous waste means a waste that is determined to be hazardous under the Resource Conservation and Recovery Act (PL 94-580) (RCRA), as implemented by 40 CFR parts 260 and 261.

Individual drain system means a stationary system used to convey wastewater streams or residuals to a waste management unit or to discharge or disposal. The term includes hard-piping, all drains and junction boxes, together with their associated sewer lines and other junction boxes (e.g., manholes, sumps, and lift stations) conveying wastewater streams or residuals. For the purpose of this subpart, an individual drain system is not a drain and collection system that is designed and operated for the sole purpose of collecting rainfall runoff (e.g., stormwater sewer system) and is segregated from all other individual drain systems.

Internal floating roof means a cover that rests or floats on the liquid surface (but not necessarily in complete contact with it inside a tank that has a fixed roof).

Light-material service means the container is used to manage an off-site material for which both of the following conditions apply: the vapor pressure of one or more of the organic constituents in the off-site material is greater than 0.3 kilopascals (kPa) at 20 °C; and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20 °C is equal to or greater than 20 percent by weight.

Liquid-mounted seal means a foam- or liquid-filled continuous seal mounted in contact with the liquid in a unit.

Maximum HAP vapor pressure means the sum of the individual HAP equilibrium partial pressure exerted by an off-site material at the temperature equal to either: the local maximum monthly average temperature as reported by the National Weather Service when the off-site material is stored or treated at ambient temperature; or the highest calendar-month average temperature of the off-site material when the off-site material is stored at temperatures above the ambient temperature or when the off-site material is stored or treated at temperatures below the ambient temperature. For the purpose of this subpart, maximum HAP vapor pressure is determined using the procedures specified in §63.694(j) of this subpart.

Metallic shoe seal means a continuous seal that is constructed of metal sheets which are held vertically against the wall of the tank by springs, weighted levers, or other mechanisms and is connected to the floating roof by braces or other means. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

No detectable organic emissions means no escape of organics to the atmosphere as determined using the procedure specified in §63.694(k) of this subpart.

Off-site material means a material that meets all of the criteria specified in paragraph §63.680(b)(1) of this subpart but is not one of the materials specified in §63.680(b)(2) of this subpart.

Off-site material management unit means a tank, container, surface impoundment, oil-water separator, organic-water separator, or transfer system used to manage off-site material.

Off-site material service means any time when a pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, or instrumentation system contains or contacts off-site material.

Off-site material stream means an off-site material produced or generated by a particular process or source such that the composition and form of the material comprising the stream remain consistent. An off-site material stream may be delivered, transferred, or otherwise moved to the plant site in a continuous flow of material (e.g., wastewater flowing through a pipeline) or in a series of discrete batches of material (e.g., a truckload of drums all containing the same off-site material or multiple bulk truck loads of an off-site material produced by the same process).

Oil-water separator means a separator as defined for this subpart that is used to separate oil from water.

Operating parameter value means a minimum or maximum value established for a control device or treatment process parameter which, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with an applicable emission limitation or standard.

Organic-water separator means a separator as defined for this subpart that is used to separate organics from water.

Plant site means all contiguous or adjoining property that is under common control including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof. A unit or group of units within a contiguous property that are not under common control (e.g., a wastewater treatment unit or solvent recovery unit located at the site but is sold to a different company) is a different plant site.

Point-of-delivery means the point at the boundary or within the plant site where the owner or operator first accepts custody, takes possession, or assumes responsibility for the management of an off-site material stream managed in a waste management operation or recovery operation specified in §63.680 (a)(2)(i) through (a)(2)(vi) of this subpart. The characteristics of an off-site material stream are determined prior to combining the off-site material stream with other off-site material streams or with any other materials.

Point-of-treatment means a point after the treated material exits the treatment process but before the first point downstream of the treatment process exit where the organic constituents in the treated material have the potential to volatilize and be released to the atmosphere. For the purpose of applying this definition to this subpart, the first point downstream of the treatment process exit is not a fugitive

emission point due to an equipment leak from any of the following equipment components: pumps, compressors, valves, connectors, instrumentation systems, or safety devices.

Process heater means an enclosed combustion device that transfers heat released by burning fuel directly to process streams or to heat transfer liquids other than water.

Process vent means an open-ended pipe, stack, or duct through which a gas stream containing HAP is continuously or intermittently discharged to the atmosphere from any of the processes listed in §63.680(c)(2)(i) through (c)(2)(vi) of this section. For the purpose of this subpart, a process vent is none of the following: a pressure-relief vent or other vent that is used as a safety device (as defined in this section); an open-ended line or other vent that is subject to the equipment leak control requirements under §63.691 of this subpart; or a stack or other vent that is used to exhaust combustion products from a boiler, furnace, process heater, incinerator, or other combustion device.

Recovery operation means the collection of off-site material management units, process vents, and equipment components used at a plant site to manage an off-site material stream from the point-of-delivery through the point where the material has been recycled, reprocessed, or re-refined to obtain the intended product or to remove the physical and chemical impurities of concern.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions to prevent physical damage or permanent deformation to equipment by venting gases or vapors during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.

Separator means a waste management unit, generally a tank, used to separate oil or organics from water. A separator consists of not only the separation unit but also the forebay and other separator basins, skimmers, weirs, grit chambers, sludge hoppers, and bar screens that are located directly after the individual drain system and prior to any additional treatment units such as an air flotation unit clarifier or biological treatment unit. Examples of a separator include, but are not limited to, an API separator, parallel-plate interceptor, and corrugated-plate interceptor with the associated ancillary equipment.

Single-seal system means a floating roof having one continuous seal. This seal may be vapor-mounted, liquid-mounted, or a metallic shoe seal.

Surface impoundment means a unit that is a natural topographical depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquids. Examples of surface impoundments include holding, storage, settling, and aeration pits, ponds, and lagoons.

Tank means a stationary unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provide structural support and is designed to hold an accumulation of liquids or other materials.

Transfer system means a stationary system for which the predominant function is to convey liquids or solid materials from one point to another point within a waste management operation or recovery operation. For the purpose of this subpart, the conveyance of material using a container (as defined for this subpart) or a self-propelled vehicle (e.g., a front-end loader) is not a transfer system. Examples of a transfer system include but are not limited to a pipeline, an individual drain system, a gravity-operated conveyor (such as a chute), and a mechanically-powered conveyor (such as a belt or screw conveyor).

Temperature monitoring device means a piece of equipment used to monitor temperature and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius (°C) or ±1.2 degrees °C, whichever value is greater.

Treatment process means a process in which an off-site material stream is physically, chemically, thermally, or biologically treated to destroy, degrade, or remove hazardous air pollutants contained in the off-site material. A treatment process can be composed of a single unit (e.g., a steam stripper) or a series of units (e.g., a wastewater treatment system). A treatment process can be used to treat one or more off-site material streams at the same time.

Used oil means any oil refined from crude oil or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities. This definition is the same definition of "used oil" in 40 CFR 279.1.

Used solvent means a mixture of aliphatic hydrocarbons or a mixture of one and two ring aromatic hydrocarbons that has been used as a solvent and as a result of such use is contaminated by physical or chemical impurities.

Vapor-mounted seal means a continuous seal that is mounted such that there is a vapor space between the liquid in the unit and the bottom of the seal.

Volatile organic hazardous air pollutant concentration or *VOHAP concentration* means the fraction by weight of those compounds listed in Table 1 of this subpart that are in an off-site material as measured using Method 305 in appendix A of this part and expressed in terms of parts per million (ppm). As an alternative to using Method 305, an owner or operator may determine the HAP concentration of an off-site material using any one of the other test methods specified in §63.694(b)(2)(ii) of this subpart. When a test method specified in §63.694(b)(2)(ii) of this subpart other than Method 305 is used to determine the speciated HAP concentration of an off-site material, the individual compound concentration may be adjusted by the corresponding fm305 value listed in Table 1 of this subpart to determine a VOHAP concentration.

Waste means a material generated from industrial, commercial, mining, or agricultural operations or from community activities that is discarded, discharged, or is being accumulated, stored, or physically, chemically, thermally, or biologically treated prior to being discarded or discharged.

Waste management operation means the collection of off-site material management units, process vents, and equipment components used at a plant site to manage an off-site material stream from the point-of-delivery to the point where the waste exits or is discharged from the plant site or the waste is placed for on-site disposal in a unit not subject to this subpart (e.g., a waste incinerator, a land disposal unit).

Waste stabilization process means any physical or chemical process used to either reduce the mobility of hazardous constituents in a waste or eliminate free liquids as determined by Test Method 9095 -- Paint Filter Liquids Test in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846, Third Edition, September 1986, as amended by Update I, November 15, 1992. (As an alternative, an owner or operator may use any more recent, updated version of Method 9095 approved by the EPA.)

A waste stabilization process includes mixing the waste with binders or other materials and curing the resulting waste and binder mixture. Other synonymous terms used to refer to this process are "waste fixation" or "waste solidification." A waste stabilization process does not include the adding of absorbent materials to the surface of a waste, without mixing, agitation, or subsequent curing, to absorb free liquid.

§63.682 [Reserved]

§63.683 Standards: General.

(a) The general standards under this section apply to owners and operators of affected sources as designated in §§63.680(c) of this subpart.

(b) *Off-site material management units.* (1) For each off-site material management unit that is part of an affected source, the owner or operator must meet the requirements in either paragraph (b)(1)(i), (b)(1)(ii), or (b)(1)(iii) of this section except for those off-site material management units exempted under paragraph (b)(2) of this section.

(i) The owner or operator controls air emissions from the off-site material management unit in accordance with the applicable standards specified in §63.685 through 63.689 of this subpart.

(ii) The owner or operator removes or destroys HAP in the off-site material before placing the material in the off-site material management unit by treating the material in accordance with the standards specified in §63.684 of this subpart.

(iii) The owner or operator determines before placing off-site material in the off-site material management unit that the average VOHAP concentration of the off-site material is less than 500 parts per million by weight (ppmw) at the point-of-delivery. The owner or operator must perform an initial determination of the average VOHAP concentration of the off-site material using the procedures specified in §63.694(b) of this subpart. This initial determination must be performed either before the first time any portion of the off-site material stream is placed in the unit or by the compliance date, whichever date is later. Thereafter, the owner or operator must review and update, as necessary, this

determination at least once every calendar year following the date of the initial determination for the off-site material stream.

(2) An off-site material management unit is exempted from the requirements in paragraph (b)(1) of this section when the owner or operator meets one of the exemptions provided in paragraphs (b)(2)(i) through (b)(2)(iv) of this section as applicable to the unit.

(i) An off-site material management unit is exempted from the requirements in paragraph (b)(1) of this section if the off-site material management unit is also subject to another subpart under 40 CFR part 63 or 40 CFR part 61, and the owner or operator is controlling the HAP listed in Table 1 of this subpart that are emitted from the unit in compliance with the provisions specified in the other applicable subpart under part 61 or part 63.

(ii) At the discretion of the owner or operator, one or a combination of off-site material management units may be exempted from the requirements in paragraph (b)(1) of this section when these units meet the condition that the total annual quantity of HAP contained in the off-site material placed in the units exempted under this paragraph (b)(2)(ii) is less than 1 megagram per year. For the off-site material management units selected by the owner or operator to be exempted from the requirements in paragraph (b)(1) of this section, the owner or operator must meet the requirements in paragraphs (b)(2)(ii)(A) and (b)(2)(ii)(B) of this section. An owner or operator may change the off-site material management units selected to be exempted under this paragraph (b)(2)(ii) by preparing a new designation for the exempt-units as required by paragraph (b)(2)(ii)(A) of this section and performing a new determination as required by paragraph (b)(2)(ii)(B) of this section.

(A) The owner or operator must designate each of the off-site material management units selected by the owner or operator to be exempt under paragraph (b)(2)(ii) of this section by either submitting to the Administrator a written notification identifying the exempt-units or permanently marking the exempt-units at the plant site. If an owner or operator chooses to prepare and submit a written notification, this notification must include a site plan, process diagram, or other appropriate documentation identifying each of the exempt-units. If an owner or operator chooses to permanently mark the exempt-units, each exempt-unit must be marked in such a manner that it can be readily identified as an exempt-unit from the other off-site material management units located at the plant site.

(B) The owner or operator must prepare an initial determination of the total annual HAP quantity in the off-site material placed in the units exempted under this paragraph (b)(2)(ii). This determination is based on the total quantity of the HAP listed in Table 1 of this subpart as determined at the point where the off-site material is placed in each exempted unit. The owner or operator must perform a new determination whenever the extent of changes to the quantity or composition of the off-site material placed in the exempted units could cause the total annual HAP content in the off-site material to exceed 1 megagram per year. The owner or operator must maintain documentation to support the most recent determination of the total annual HAP quantity. This documentation must include the basis and data used for determining the HAP content of the off-site material.

(iii) A tank or surface impoundment is exempted from the requirements in paragraph (b)(1) of this section if the unit is used for a biological treatment process that meets the requirements in either

paragraph (b)(2)(iii)(A) or (b)(2)(iii)(B) of this section and the owner or operator complies with the monitoring requirements in §63.684(e)(4) of this subpart.

(A) The HAP biodegradation efficiency (Rbio) for the biological treatment process is equal to or greater than 95 percent. The HAP biodegradation efficiency (Rbio) shall be determined in accordance with the requirements of §63.694(h) of this subpart.

(B) The total actual HAP mass removal rate (MRbio) for the off-site material treated by the biological treatment process is equal to or greater than the required HAP mass removal rate (RMR) for the off-site material. The total actual HAP mass removal rate (MRbio) must be determined in accordance with the requirements of §63.694(i) of this subpart. The required HAP mass removal rate (RMR) must be determined in accordance with the requirements of §63.694(e) of this subpart.

(iv) An off-site material management unit is exempted from the requirements in paragraph (b)(1) of this section if the off-site material placed in the unit is a hazardous waste that meets the conditions specified in either paragraph (b)(2)(iv)(A) or (b)(2)(iv)(B) of this section.

(A) The hazardous waste meets the numerical organic concentration limits, applicable to the hazardous waste, as specified in 40 CFR part 268 -- Land Disposal Restrictions, listed in the table, "Treatment Standards for Hazardous Waste" in 40 CFR 268.40.

(B) The organic hazardous constituents in the hazardous waste have been treated by the treatment technology established by the EPA for the hazardous waste in 40 CFR 268.42(a), or have been removed or destroyed by an equivalent method of treatment approved by the EPA under 40 CFR 268.42(b).

(v) A tank used for bulk feed of off-site material to a waste incinerator is exempted from the requirements specified in paragraph (b)(1) of this section if the tank meets all of the conditions specified in paragraphs (b)(2)(v)(A) through (b)(2)(v)(C) of this section.

(A) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under 40 CFR Part 61, Subpart FF -- National Emission Standards for Benzene Waste Operations for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams per year;

(B) The enclosure and control device serving the tank were installed and began operation prior to July 1, 1996; and

(C) The enclosure is designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T -- Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical or electrical equipment; or to direct air flow into the enclosure. The owner or operator must annually perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T -- Criteria for and Verification of a Permanent or Temporary Total Enclosure."

(c) *Process vents.* (1) For each process vent that is part of an affected source, the owner or operator must meet the requirements in either paragraph (c)(1)(i) or (c)(1)(ii) of this section except for those process vents exempted under paragraph (c)(2) of this section.

(i) The owner or operator controls air emissions from the process vent in accordance with the standards specified in §63.690 of this subpart.

(ii) The owner or operator determines before placing off-site material in the process equipment associated with the process vent that the average VOHAP concentration of the off-site material is less than ppmw at the point-of-delivery. The owner or operator must perform an initial determination of the average VOHAP concentration of the off-site material using the procedures specified in §63.694(b) of this subpart before any portion of the off-site material stream is placed in the unit. Thereafter, the owner or operator must review and update, as necessary, this determination at least once every calendar year following the date of the initial determination for the off-site material stream.

(2) A process vent is exempted from the requirements of paragraph (c)(1) of this section when the owner or operator meets one of the exemptions provided in paragraphs (c)(2)(i) through (c)(2)(iii) of this section.

(i) A process vent is exempted from the requirements in paragraph (c)(1) of this section if the process vent is also subject to another subpart under part 63 or 40 CFR part 61, and the owner or operator is controlling the HAP listed in Table 1 of this subpart that are emitted from the process vent in compliance with the provisions specified in the other applicable subpart under part 61 or part 63.

(ii) A process vent is exempted from the requirements specified in paragraph (c)(1) of this section if the owner or operator determines that the process vent stream flow rate is less than 0.005 cubic meters per minute (m^3/min) at standard conditions (as defined in 40 CFR 63.2). The process vent stream flow rate shall be determined in accordance with the procedures specified in §63.694(m) of this subpart. Documentation must be prepared by the owner or operator and maintained at the plant site to support the determination of the process vent stream flow rate. This documentation must include identification of each process vent exempted under this paragraph and the test results used to determine the process vent stream flow rate.

(iii) A process vent is exempted from the requirements specified in paragraph (c)(1) of this section if the owner or operator determines that the process vent stream flow rate is less than 6.0 m^3/min at standard conditions (as defined in 40 CFR 63.2) and the total HAP concentration is less than 20 ppmv. The process vent stream flow rate and total HAP concentration shall be determined in accordance with the procedures specified in §63.694(m) of this subpart. Documentation must be prepared by the owner or operator and maintained at the plant site to support the determination of the process vent stream flow rate and total HAP concentration. This documentation must include identification of each process vent exempted under this paragraph (c)(2)(iii) and the test results used to determine the process vent stream flow rate and total HAP concentration.

The owner or operator must perform a new determination of the process vent stream flow rate and total HAP concentration when the extent of changes to operation of the unit on which the process vent is used could cause either the process vent stream flow rate to exceed the limit of 6.0 m^3/min or the total HAP concentration to exceed the limit of 20 ppmv.

(d) *Equipment leaks.* The owner or operator must control equipment leaks from each equipment component that is part of the affected source specified in §63.680(c)(3) of this subpart by implementing leak detection and control measures in accordance with the standards specified in §63.691 of this subpart.

§63.684 Standards: Off-site material treatment.

(a) The provisions of this section apply to the treatment of off-site material to remove or destroy HAP for which §63.683(b)(1)(ii) of this subpart references the requirements of this section for such treatment.

(b) The owner or operator shall remove or destroy the HAP contained in off-site material streams to be managed in the off-site material management unit in accordance with §63.683(b)(1)(ii) of this subpart using a treatment process that continuously achieves, under normal operations, one or more of the performance levels specified in paragraphs (b)(1) through (b)(5) of this section (as applicable to the type of treatment process) for the range of off-site material stream compositions and quantities expected to be treated.

(1) *VOHAP concentration.* The treatment process shall reduce the VOHAP concentration of the off-site material using a means, other than by dilution, to achieve one of the following performance levels, as applicable:

(i) In the case when every off-site material stream entering the treatment process has an average VOHAP concentration equal to or greater than 500 ppmw at the point-of-delivery, then the VOHAP concentration of the off-site material shall be reduced to a level that is less than 500 ppmw at the point-of-treatment.

(ii) In the case when off-site material streams entering the treatment process are a mixture of off-site material streams having an average VOHAP concentration equal to or greater than 500 ppmw at the point-of-delivery with off-site material streams having average VOHAP concentrations less than 500 ppmw at the point-of-delivery, then the VOHAP concentration of the off-site material must be reduced to a level at the point-of-treatment that meets the performance level specified in either paragraph (b)(1)(ii)(A) or (B) of this section.

(A) Less than the VOHAP concentration limit (CR) established for the treatment process using the procedure specified in §63.694(d); or

(B) Less than the lowest VOHAP concentration determined for each of the off-site material streams entering the treatment process as determined by the VOHAP concentration of the off-site material at the point-of-delivery.

(2) *HAP mass removal.* The treatment process shall achieve a performance level such that the total quantity of HAP actually removed from the off-site material stream (MR) is equal to or greater than the required mass removal (RMR) established for the off-site material stream using the procedure specified in §63.694(e) of this subpart. The MR for the off-site material streams shall be determined using the procedures specified in §63.694(f) of this subpart.

(3) *HAP reduction efficiency.* For any treatment process except a treatment process that uses biological degradation and is performed in an open tank or surface impoundment, the treatment process must achieve the applicable performance level specified in either paragraph (b)(3)(i) or (b)(3)(ii) of this section.

(i) In the case when the owner or operator determines that off-site material stream entering the treatment process has an average VOHAP concentration less than 10,000 ppmw at the point-of-delivery, then the treatment process shall achieve a performance level such that the total quantity of HAP in the off-site material stream is reduced by 95 percent or more. The HAP reduction efficiency (R) for the treatment process shall be determined using the procedure specified in §63.694(g) of this subpart. The average VOHAP concentration of the off-site material stream at the point-of-delivery shall be determined using the procedure specified in §63.694(b) of this subpart.

(ii) In the case when the off-site material stream entering the treatment process has an average VOHAP concentration equal to or greater than 10,000 ppmw at the point-of-delivery, then the treatment process shall achieve a performance level such that the total quantity of HAP in the off-site material stream is reduced by 95 percent or more, and the average VOHAP concentration of the off-site material at the point-of-treatment is less than 100 parts per million by weight (ppmw). The HAP reduction efficiency (R) for the treatment process shall be determined using the procedure specified in §63.694(g) of this subpart. The average VOHAP concentration of the off-site material stream at the point-of-treatment shall be determined using the procedure specified in §63.694(c) of this subpart.

(4) *Biological degradation performed in an open tank or surface impoundment.* A treatment process using biological degradation and performed in an open tank or surface impoundment must achieve the performance level specified in either paragraph (b)(4)(i) or (b)(4)(ii) of this section.

(i) The HAP reduction efficiency (R) for the treatment process is equal to or greater than 95 percent, and the HAP biodegradation efficiency (Rbio) for the treatment process is equal to or greater than 95 percent. The HAP reduction efficiency (R) shall be determined using the procedure specified in §63.694(g) of this subpart. The HAP biodegradation efficiency (Rbio) shall be determined in accordance with the requirements of §63.694(h) of this subpart.

(ii) The total quantity of HAP actually removed from the off-site material stream by biological degradation (MRbio) shall be equal to or greater than the required mass removal (RMR) established for the off-site material stream using the procedure specified in §63.694(e) of this subpart. The MRbio of the off-site material stream shall be determined using the procedures specified in §63.694(i) of this subpart.

(5) *Incineration.* The treatment process must destroy the HAP contained in the off-site material stream using one of the combustion devices specified in paragraphs (b)(5)(i) through (b)(5)(iv) of this section.

(i) An incinerator for which the owner or operator has been issued a final permit under 40 CFR part 270, and the incinerator is designed and operated in accordance with the requirements of 40 CFR part 264, subpart O -- Incinerators, or

(ii) An incinerator for which the owner or operator has certified compliance with the interim status requirements of 40 CFR part 265, subpart O -- Incinerators.

(iii) A boiler or industrial furnace for which the owner or operator has been issued a final permit under 40 CFR part 270, and the combustion unit is designed and operated in accordance with the requirements of 40 CFR part 266, subpart H -- Hazardous Waste Burned in Boilers and Industrial Furnaces.

(iv) A boiler or industrial furnace for which the owner or operator has certified compliance with the interim status requirements of 40 CFR part 266, subpart H Hazardous Waste Burned in Boilers and Industrial Furnaces.

(c) For a treatment process that removes the HAP from the off-site material by a means other than thermal destruction or biological degradation to achieve one of the performances levels specified in paragraph (b)(1), (b)(2), or (b)(3) of this section, the owner or operator shall manage the HAP removed from the off-site material in such a manner to minimize release of these HAP to the atmosphere, to the extent practical. Examples of HAP emission control measures that meet the requirements of this paragraph include managing the HAP removed from the off-site material in units that use air emission controls in accordance with the standards specified in §63.685 through 63.689 of this subpart, as applicable to the unit.

(d) When the owner or operator treats the off-site material to meet one of the performance levels specified in paragraphs (b)(1) through (b)(4) of this section, the owner or operator shall demonstrate that the treatment process achieves the selected performance level for the range of expected off-site material stream compositions expected to be treated. An initial demonstration shall be performed as soon as possible but no later than 30 days after first time an owner or operator begins using the treatment process to manage off-site material streams in accordance with the requirements of either §63.683(b)(1)(ii) or §63.683(b)(2)(ii) of this subpart as applicable to the affected off-site material management unit or process equipment. Thereafter, the owner or operator shall review and update, as necessary, this demonstration at least once every calendar year following the date of the initial demonstration.

(e) When the owner or operator treats the off-site material to meet one of the performance levels specified in paragraphs (b)(1) through (b)(4) of this section, the owner or operator shall ensure that the treatment process is achieving the applicable performance requirements by continuously monitoring the operation of the process when it is used to treat off-site material by complying with paragraphs (e)(1) through (e)(3) or, for biological treatment units, paragraph (e)(4) of this section:

(1) A continuous monitoring system shall be installed and operated for each treatment that measures operating parameters appropriate for the treatment process technology. This system shall include a

continuous recorder that records the measured values of the selected operating parameters. The monitoring equipment shall be installed, calibrated, and maintained in accordance with the equipment manufacturer's specifications. The continuous recorder shall be a data recording device that is capable of recording either an instantaneous data value at least once every 15 minutes or an average value for intervals of 15 minutes or less.

(2) For each monitored operating parameter, the owner or operator shall establish a minimum operating parameter value or a maximum operating parameter value, as appropriate, to define the range of conditions at which the treatment process must be operated to continuously achieve the applicable performance requirements of this section.

(3) When the treatment process is operating to treat off-site material, the owner or operator shall inspect the data recorded by the continuous monitoring system on a routine basis and operate the treatment process such that the actual value of each monitored operating parameter is greater than the minimum operating parameter value or less than the maximum operating parameter value, as appropriate, established for the treatment process.

(4) When the treatment process is a biological treatment process that is complying with paragraph (b)(4) of this section, the owner or operator must establish and implement a written procedure to monitor the appropriate parameters that demonstrate proper operation of the biological treatment unit in accordance with the evaluation required in §63.694(h) of this subpart. The written procedure must list the operating parameters that will be monitored and state the frequency of monitoring to ensure that the biological treatment unit is operating between the minimum operating parameter values and maximum operating parameter values to establish that the biological treatment unit is continuously achieving the performance requirement.

(f) The owner or operator must maintain records for each treatment process in accordance with the requirements of §63.696(a) of this subpart.

(g) The owner or operator must prepare and submit reports for each treatment process in accordance with the requirements of §63.697(a) of this subpart.

(h) The Administrator may at any time conduct or request that the owner or operator conduct testing necessary to demonstrate that a treatment process is achieving the applicable performance requirements of this section. The testing shall be conducted in accordance with the applicable requirements of this section. The Administrator may elect to have an authorized representative observe testing conducted by the owner or operator.

§63.685 Standards: Tanks.

(a) The provisions of this section apply to the control of air emissions from tanks for which §63.683(b)(1)(i) of this subpart references the use of this section for such air emission control.

(b) The owner or operator shall control air emissions from each tank subject to this section in accordance with the following applicable requirements:

(1) For a tank that is part of an existing affected source but the tank is not used to manage off-site material having a maximum HAP vapor pressure kilopascal (kPa) that is equal to or greater than 76.6 kPa nor is the tank used for a waste stabilization process as defined in §63.681 of this subpart, the owner or operator shall determine whether the tank is required to use either Tank Level 1 controls or Tank Level 2 controls as specified for the tank by Table 3 of this subpart based on the off-site material maximum HAP vapor pressure and the tank's design capacity. The owner or operator shall control air emissions from a tank required by Table 3 to use Tank Level 1 controls in accordance with the requirements of paragraph (c) of this section. The owner or operator shall control air emissions from a tank required by Table 3 to use Tank Level 2 controls in accordance with the requirements of paragraph (d) of this section.

(2) For a tank that is part of a new affected source but the tank is not used to manage off-site material having a maximum HAP vapor pressure that is equal to or greater than 76.6 kPa nor is the tank used for a waste stabilization process as defined in §63.681 of this subpart, the owner or operator shall determine whether the tank is required to use either Tank Level 1 controls or Tank Level 2 controls as specified for the tank by Table 4 of this subpart based on the off-site material maximum HAP vapor pressure and the tank's design capacity. The owner or operator shall control air emissions from a tank required by Table 4 to use Tank Level 1 controls in accordance with the requirements of paragraph (c) of this section. The owner or operator shall control air emissions from a tank required by Table 4 to use Tank Level 2 controls in accordance with the requirements of paragraph (d) of this section.

(3) For a tank that is used for a waste stabilization process, the owner or operator shall control air emissions from the tank by using Tank Level 2 controls in accordance with the requirements of paragraph (d) of this section.

(4) For a tank that manages off-site material having a maximum HAP vapor pressure that is equal to or greater than 76.6 kPa, the owner or operator must control air emissions by using one of the tanks specified in paragraphs (b)(4)(i) through (b)(4)(iii) of this section.

(i) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in paragraph (g) of this section;

(ii) A pressure tank designed and operated in accordance with the requirements specified in paragraph (h) of this section; or

(iii) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in paragraph (i) of this section.

(c) Owners and operators controlling air emissions from a tank using Tank Level 1 controls shall meet the following requirements:

(1) The owner or operator shall determine the maximum HAP vapor pressure for an off-site material to be managed in the tank using Tank Level 1 controls before the first time the off-site material is placed in the tank. The maximum HAP vapor pressure shall be determined using the procedures specified in §63.694(j) of this subpart. Thereafter, the owner or operator shall perform a new determination

whenever changes to the off-site material managed in the tank could potentially cause the maximum HAP vapor pressure to increase to a level that is equal to or greater than the maximum HAP vapor pressure limit for the tank design capacity category specified in Table 3 or Table 4 of this subpart, as applicable to the tank.

(2) The owner or operator must control air emissions from the tank in accordance with the requirements in either paragraph (c)(2)(i), (c)(2)(ii), or (c)(2)(iii) of this section, as applicable to the tank.

(i) The owner or operator controls air emissions from the tank in accordance with the provisions specified in subpart 00 of 40 CFR part 63 -- National Emission Standards for Tanks -- Level 1.

(ii) As an alternative to meeting the requirements in paragraph (c)(2)(i) of this section, an owner or operator may control air emissions from the tank in accordance with the provisions for Tank Level 2 controls as specified in paragraph (d) of this section.

(iii) As an alternative to meeting the requirements in paragraph (c)(2)(i) of this section when a tank is used as an interim transfer point to transfer off-site material from containers to another off-site material management unit, an owner or operator may control air emissions from the tank in accordance with the requirements in paragraphs (c)(2)(iii)(A) and (c)(2)(iii)(B) of this section. An example of such a tank is an in-ground tank into which organic-contaminated debris is dumped from roll-off boxes or dump trucks, and then this debris is promptly transferred from the tank to a macroencapsulation unit by a backhoe.

(A) During those periods of time when the material transfer activity is occurring, the tank may be operated without a cover.

(B) At all other times, air emissions from the tank must be controlled in accordance with the provisions specified in 40 CFR part 67, subpart 00 -- National Emission Standards for Tanks -- Level 1.

(d) Owners and operators controlling air emissions from a tank using Tank Level 2 controls shall use one of the following tanks:

(1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in paragraph (e) of this section;

(2) A tank equipped with an external floating roof in accordance with the requirements specified in paragraph (f) of this section;

(3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in paragraph (g) of this section;

(4) A pressure tank designed and operated in accordance with the requirements specified in paragraph (h) of this section; or

(5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in paragraph (i) of this section.

(e) The owner or operator who elects to control air emissions from a tank using a fixed-roof with an internal floating roof shall meet the requirements specified in paragraphs (e)(1) through (e)(3) of this section.

(1) The tank shall be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:

(i) The internal floating roof shall be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.

(ii) The internal floating roof shall be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:

(A) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in §63.681 of this subpart; or

(B) Two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal.

(iii) The internal floating roof shall meet the following specifications:

(A) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(B) Each opening in the internal floating roof shall be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains.

(C) Each penetration of the internal floating roof for the purpose of sampling shall have a slit fabric cover that covers at least 90 percent of the opening.

(D) Each automatic bleeder vent and rim space vent shall be gasketed.

(E) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(F) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(2) The owner or operator shall operate the tank in accordance with the following requirements:

(i) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.

(ii) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

(iii) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof shall be bolted or fastened closed (i.e., no visible gaps). Rim spaces vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting.

(3) The owner or operator shall inspect the internal floating roof in accordance with the procedures specified in §63.695(b) of this subpart.

(f) The owner or operator who elects to control tank emissions by using an external floating roof shall meet the requirements specified in paragraphs (f)(1) through (f)(3) of this section.

(1) The owner or operator shall design the external floating roof in accordance with the following requirements:

(i) The external floating roof shall be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.

(ii) The floating roof shall be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be a liquid-mounted seal or a metallic shoe seal, as defined in §63.681 of this subpart. The total area of the gaps between the tank wall and the primary seal shall not exceed 212 square centimeters (cm2) per meter of tank diameter, and the width of any portion of these gaps shall not exceed 3.8 centimeters (cm). If a metallic shoe seal is used for the primary seal, the metallic shoe seal shall be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters (24 inches) above the liquid surface.

(B) The secondary seal shall be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal shall not exceed 21.2 square centimeters (cm^2) per meter of tank diameter, and the width of any portion of these gaps shall not exceed 1.3 centimeters (cm).

(iii) The external floating roof shall be meet the following specifications:

(A) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface.

(B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid.

(C) Each access hatch and each gauge float wells shall be equipped with covers designed to be bolted or fastened when the cover is secured in the closed position.

(D) Each automatic bleeder vent and each rim space vents shall be equipped with a gasket.

(E) Each roof drain that empties into the liquid managed in the tank shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(F) Each unslotted and slotted guide pole well shall be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.

(G) Each unslotted guide pole shall be equipped with a gasketed cap on the end of the pole.

(H) Each slotted guide pole shall be equipped with a gasketed float or other device which closes off the surface from the atmosphere.

(I) Each gauge hatch and each sample well shall be equipped with a gasketed cover.

(2) The owner or operator shall operate the tank in accordance with the following requirements:

(i) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.

(ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be secured and maintained in a closed position at all times except when the closure device must be open for access.

(iii) Covers on each access hatch and each gauge float well shall be bolted or fastened when secured in the closed position.

(iv) Automatic bleeder vents shall be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

(v) Rim space vents shall be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(vi) The cap on the end of each unslotted guide pole shall be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank.

(vii) The cover on each gauge hatch or sample well shall be secured in the closed position at all times except when the hatch or well must be opened for access.

(viii) Both the primary seal and the secondary seal shall completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.

(3) The owner or operator shall inspect the external floating roof in accordance with the procedures specified in §63.695(b) of this subpart.

(g) The owner or operator who controls tank air emissions by venting to a control device shall meet the requirements specified in paragraphs (g)(1) through (g)(3) of this section.

(1) The tank shall be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank.

(ii) Each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions.

(iii) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the off-site material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability, the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(iv) The closed-vent system and control device shall be designed and operated in accordance with the requirements of §63.693 of this subpart.

(2) Whenever an off-site material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

(i) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

(A) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(B) To remove accumulated sludge or other residues from the bottom of the tank.

(ii) Opening of a safety device, as defined in §63.681 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the procedures specified in §63.695 of this subpart.

(h) The owner or operator who elects to control tank air emissions by using a pressure tank shall meet the following requirements.

(1) The tank shall be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.

(2) All tank openings shall be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in §63.694(k) of this subpart.

(3) Whenever an off-site material is in the tank, the tank shall be operated as a closed system that does not vent to the atmosphere except under either of the following conditions as specified in paragraph (h)(3)(i) or (h)(3)(ii) of this section.

(i) At those times when opening of a safety device, as defined in §63.681 of this subpart, is required to avoid an unsafe condition.

(ii) At those times when purging of inerts from the tank is required and the purge stream is routed to a closed-vent system and control device designed and operated in accordance with the requirements of §63.693 of this subpart.

(i) The owner or operator who elects to control air emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device shall meet the requirements specified in paragraphs (i)(1) through (4) of this section.

(1) The tank shall be located inside an enclosure. The enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T -- Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, Appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or to direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T -- Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

(2) The enclosure shall be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in §63.693 of this subpart.

(3) Opening of a safety device, as defined in §63.681 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(4) The owner or operator shall inspect and monitor the closed-vent system and control device as specified in §63.693.

§63.686 Standards: Oil-water and organic-water separators.

(a) The provisions of this section apply to the control of air emissions from oil-water separators and organic-water separators for which §63.683(b)(1)(i) of this subpart references the use of this section for such air emission control.

(b) The owner or operator shall control air emissions from each separator subject to this section by using one of the following:

(1) A floating roof in accordance with all applicable provisions specified in 40 CFR Part 63, Subpart VV -- National Emission Standards for Oil-Water Separators and Organic-Water Separators. For portions of the separator where it is infeasible to install and operate a floating roof, such as over a weir mechanism, the owner or operator shall comply with the requirements specified in paragraph (b)(2) of this section.

(2) A fixed-roof that is vented through a closed-vent system to a control device in accordance with all applicable provisions specified in 40 CFR Part 63, Subpart VV -- National Emission Standards for Oil-Water Separators and Organic-Water Separators.

(3) A pressurized separator that operates as a closed system in accordance with all applicable provisions specified in 40 CFR part 63, subpart VV -- National Emission Standards for Oil-Water Separators and Organic-Water Separators.

§63.687 Standards: Surface impoundments.

(a) The provisions of this section apply to the control of air emissions from surface impoundments for which §63.683(b)(1)(i) of this subpart references the use of this section for such air emission control.

(b) The owner or operator shall control air emissions from each surface impoundment subject to this section by using one of the following:

(1) A floating membrane cover in accordance with the applicable provisions specified in 40 CFR Part 63, Subpart QQ -- National Emission Standards for Surface Impoundments; or

(2) A cover that is vented through a closed-vent system to a control device in accordance with all applicable provisions specified in 40 CFR Part 63, Subpart QQ -- National Emission Standards for Surface Impoundments.

§63.688 Standards: Containers.

(a) The provisions of this section apply to the control of air emissions from containers for which §63.683(b)(1)(i) of this subpart references the use of this section for such air emission control.

(b) The owner or operator shall control air emissions from each container subject to this section in accordance with the following requirements, as applicable to the container, except when the special provisions for waste stabilization processes specified in paragraph (c) of this section apply to the container.

(1) For a container having a design capacity greater than 0.1 m^3 and less than or equal to 0.46 m^3, the owner or operator must control air emissions from the container in accordance with the requirements in either paragraph (b)(1)(i) or (b)(1)(ii) of this section.

(i) The owner or operator controls air emissions from the container in accordance with the standards for Container Level 1 controls as specified in 40 CFR part 63, subpart PP -- National Emission Standards for Containers.

(ii) As an alternative to meeting the requirements in paragraph (b)(1)(i) of this section, an owner or operator may choose to control air emissions from the container in accordance with the standards for either Container Level 2 controls or Container Level 3 controls as specified in subpart PP of this part 63 -- National Emission Standards for Containers.

(2) For a container having a design capacity greater than 0.46 m^3 and the container is not in light-material service as defined in §63.681 of this subpart, the owner or operator must control air emissions from the container in accordance with the requirements in either paragraph (b)(1)(i) or (b)(1)(ii) of this section.

(3) For a container having a design capacity greater than 0.46 m^3 and the container is in light-material service as defined in §63.681 of this subpart, the owner or operator must control air emissions from the container in accordance with the requirements in either paragraph (b)(3)(i) or (b)(3)(ii) of this section.

(i) The owner or operator controls air emissions from the container in accordance with the standards for Container Level 2 controls as specified in 40 CFR part 63, subpart PP -- National Emission Standards for Containers.

(ii) As an alternative to meeting the requirements in paragraph (b)(3)(i) of this section, an owner or operator may choose to control air emissions from the container in accordance with the standards for Container Level 3 controls as specified in 40 CFR part 63, subpart PP -- National Emission Standards for Containers.

(c) When a container subject to this subpart and having a design capacity greater than 0.1 m^3 is used for treatment of an off-site material by a waste stabilization process as defined in §63.681 of this subpart, the owner or operator shall control air emissions from the container at those times during the process when the off-site material in the container is exposed to the atmosphere in accordance with the standards for Container Level 3 controls as specified in 40 CFR part 63, subpart PP -- National Emission Standards for Containers.

§63.689 Standards: Transfer systems.

(a) The provisions of this section apply to the control of air emissions from transfer systems for which §63.683(b)(1)(i) of this subpart references the use of this section for such air emission control.

(b) For each transfer system that is subject to this section and is an individual drain system, the owner or operator shall control air emissions in accordance with the standards specified in 40 CFR part 63, subpart RR -- National Emission Standards for Individual Drain Systems.

(c) For each transfer system that is subject to this section but is not an individual drain system, the owner or operator shall control air emissions by using one of the transfer systems specified in paragraphs (c)(1) through (c)(3) of this section.

(1) A transfer system that uses covers in accordance with the requirements specified in paragraph (d) of this section.

(2) A transfer system that consists of continuous hard-piping. All joints or seams between the pipe sections shall be permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed flange).

(3) A transfer system that is enclosed and vented through a closed-vent system to a control device in accordance with the requirements specified in paragraphs (c)(3)(i) and (c)(3)(ii) of this section.

(i) The transfer system is designed and operated such that an internal pressure in the vapor headspace in the enclosure is maintained at a level less than atmospheric pressure when the control device is operating, and

(ii) The closed-vent system and control device are designed and operated in accordance with the requirements of §63.693 of this subpart.

(d) Owners and operators controlling air emissions from a transfer system using covers in accordance with the provisions of paragraph (c)(1) of this section shall meet the requirements specified in paragraphs (d)(1) through (d)(6) of this section.

(1) The cover and its closure devices shall be designed to form a continuous barrier over the entire surface area of the off-site material as it is conveyed by the transfer system except for the openings at the inlet and outlet to the transfer system through which the off-site material passes. The inlet and outlet openings used for passage of the off-site material through the transfer system shall be the minimum size required for practical operation of the transfer system.

(2) The cover shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between cover section joints or between the interface of the cover edge and its mounting.

(3) Except for the inlet and outlet openings to the transfer system through which the off-site material passes, each opening in the cover shall be equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device.

(4) The cover and its closure devices shall be made of suitable materials that will minimize exposure of the off-site material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the cover and closure devices shall include: organic vapor permeability; the effects of any contact with the material or its vapors conveyed in the transfer system; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the transfer system on which the cover is installed.

(5) Whenever an off-site material is in the transfer system, the cover shall be installed with each closure device secured in the closed position except as specified in paragraph (d)(5)(i) or (d)(5)(ii) of this section.

(i) Opening of closure devices or removal of the cover is allowed to provide access to the transfer system for performing routine inspection, maintenance, repair, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a hatch or remove the cover to repair conveyance equipment mounted under the cover or to clear a blockage of material inside the system. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable.

(ii) Opening of a safety device, as defined in §63.681 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(6) The owner or operator shall inspect the air emission control equipment in accordance with the requirements specified in §63.695 of this subpart.

§63.690 Standards: Process vents.

(a) The provisions of this section apply to the control of air emissions from process vents for which §63.683(c)(1)(i) of this subpart references the use of this section for such air emission control.

(b) The owner or operator must route the vent stream from each affected process vent through a closed-vent system to a control device that meets the standards specified in §63.693 of this subpart. For the purpose of complying with this paragraph (b), a primary condenser is not a control device; however, a second condenser or other organic recovery device that is operated downstream of the primary condenser is considered a control device.

§63.691 Standards: Equipment leaks.

(a) The provisions of this section apply to the control of air emissions from equipment leaks for which §63.683(d) references the use of this section for such air emissions control.

(b) The owner or operator shall control the HAP emitted from equipment leaks in accordance with the applicable provisions specified in either paragraph (b)(1) or (b)(2) of this section.

(1) The owner or operator controls the HAP emitted from equipment leaks in accordance with §61.242 through §61.247 in 40 CFR part 61, subpart V -- National Emission Standards for Equipment Leaks; or

(2) The owner or operator controls the HAP emitted from equipment leaks in accordance with §63.162 through §63.182 in subpart H -- National Emission Standards for Organic Hazardous Air Pollutants from Equipment Leaks.

§63.692 [Reserved]

§63.693 Standards: Closed-vent systems and control devices.

(a) The provisions of this section apply to closed-vent systems and control devices used to control air emissions for which another standard references the use of this section for such air emission control.

(b) For each closed-vent system and control device used to comply with this section, the owner or operator shall meet the following requirements:

(1) The owner or operator must use a closed-vent system that meets the requirements specified in paragraph (c) of this section.

(2) The owner or operator must use a control device that meets the requirements specified in paragraphs (d) through (h) of this section as applicable to the type and design of the control device selected by the owner or operator to comply with the provisions of this section.

(3) Whenever gases or vapors containing HAP are vented through a closed-vent system connected to a control device used to comply with this section, the control device must be operating except at those times listed in either paragraph (b)(3)(i) or (b)(3)(ii) of this section.

(i) The control device may be bypassed for the purpose of performing planned routine maintenance of the closed-vent system or control device in situations when the routine maintenance cannot be performed during periods that the emission point vented to the control device is shutdown. On an annual basis, the total time that the closed-vent system or control device is bypassed to perform routine maintenance shall not exceed 240 hours per each calendar year.

(ii) The control device may be bypassed for the purpose of correcting a malfunction of the closed-vent system or control device. The owner or operator shall perform the adjustments or repairs necessary to correct the malfunction as soon as practicable after the malfunction is detected.

(4) The owner or operator must inspect and monitor each closed-vent system in accordance with the requirements specified in either paragraph (b)(4)(i) or (b)(4)(ii) of this section.

(i) The owner or operator inspects and monitors the closed-vent system in accordance with the requirements specified in §63.695(c) of this subpart, and complies with the applicable record keeping requirements in §63.696 of this subpart and the applicable reporting requirements in §63.697 of this subpart.

(ii) As an alternative to meeting the requirements specified in paragraph (b)(4)(i) of this section, the owner or operator may choose to inspect and monitor the closed-vent system in accordance with the requirements under 40 CFR part 63, subpart H -- National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks as specified in 40 CFR 63.172(f) through (h), and complies with the applicable record keeping requirements in 40 CFR 63.181 and the applicable reporting requirements in 40 CFR 63.182.

(5) The owner or operator must monitor the operation of each control device in accordance with the requirements specified in paragraphs (d) through (h) of this section as applicable to the type and design of the control device selected by the owner or operator to comply with the provisions of this section.

(6) The owner or operator shall maintain records for each control device in accordance with the requirements of §63.696 of this subpart.

(7) The owner or operator shall prepare and submit reports for each control device in accordance with the requirements of §63.697 of this subpart.

(8) In the case when an owner or operator chooses to use a design analysis to demonstrate compliance of a control device with the applicable performance requirements specified in this section as provided for in paragraphs (d) through (g) of this section, the Administrator may request that the design analysis be revised or amended by the owner or operator to correct any deficiencies identified by the Administrator. If the owner or operator and the Administrator do not agree on the acceptability of using the design analysis (including any changes requested by the Administrator) to demonstrate that the control device achieves the applicable performance requirements, then the disagreement must be resolved using the results of a performance test conducted by the owner or operator in accordance with the requirements of §63.694(l) of this subpart. The Administrator may choose to have an authorized representative observe the performance test conducted by the owner or operator. Should the results of this performance test not agree with the determination of control device performance based on the design analysis, then the results of the performance test will be used to establish compliance with this subpart.

(c) Closed-vent system requirements.

(1) The vent stream required to be controlled shall be conveyed to the control device by either of the following closed-vent systems:

(i) A closed-vent system that is designed to operate with no detectable organic emissions using the procedure specified in §63.694(k) of this subpart; or

(ii) A closed-vent system that is designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gage or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.

(2) In situations when the closed-vent system includes bypass devices that could be used to divert a vent stream from the closed-vent system to the atmosphere at a point upstream of the control device inlet, each bypass device must be equipped with either a flow indicator as specified in paragraph (c)(2)(i) of this section or a seal or locking device as specified in paragraph (c)(2)(ii) of this section. For the purpose of complying with this paragraph (c)(2), low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, or pressure relief valves needed for safety reasons are not subject to the requirements of this paragraph (c)(2).

(i) If a flow indicator is used, the indicator must be installed at the entrance to the bypass line used to divert the vent stream from the closed-vent system to the atmosphere. The flow indicator must indicate a reading at least once every 15 minutes. The owner or operator must maintain records of the following information: hourly records of whether the flow indicator was operating and whether flow was detected at any time during the hour; and records of all periods when flow is detected or the flow indicator is not operating.

(ii) If a seal or locking device is used to comply with paragraph (c)(2) of this section, the device shall be placed on the mechanism by which the bypass device position is controlled (*e.g.*, valve handle, damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve.

(d) Carbon adsorption control device requirements.

(1) The carbon adsorption system must achieve the performance specifications in either paragraph (d)(1)(i) or (d)(1)(ii) of this section.

(i) Recover 95 percent or more, on a weight-basis, of the total organic compounds (TOC), less methane and ethane, contained in the vent stream entering the carbon adsorption system; or

(ii) Recover 95 percent or more, on a weight-basis, of the total HAP listed in Table 1 of this subpart contained in the vent stream entering the carbon adsorption system.

(2) The owner or operator must demonstrate that the carbon adsorption system achieves the performance requirements in paragraph (d)(1) of this section by either performing a performance test as specified in paragraph (d)(2)(i) of this section or a design analysis as specified in paragraph (d)(2)(ii) of this section.

(i) An owner or operator choosing to use a performance test to demonstrate compliance must conduct the test in accordance with the requirements of §63.694(l) of this subpart.

(ii) An owner or operator choosing to use a design analysis to demonstrate compliance must include as part of this design analysis the information specified in either paragraph (d)(2)(ii)(A) or (d)(2)(ii)(B) of this section as applicable to the carbon adsorption system design.

(A) For a regenerable carbon adsorption system, the design analysis shall address the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature and shall establish the design exhaust vent stream organic compound concentration, adsorption cycle time, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total regeneration steam flow over the period of each complete carbon bed regeneration cycle, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of the carbon.

(B) For a nonregenerable carbon adsorption system (e.g., a carbon canister), the design analysis shall address the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature and shall establish the design exhaust vent stream organic compound concentration, carbon bed capacity, activated carbon type and working capacity, and design carbon replacement interval based on the total carbon working capacity of the control device and emission point operating schedule.

(3) The owner or operator must monitor the operation of the carbon adsorption system in accordance with the requirements of §63.695(e) using one of the continuous monitoring systems specified in paragraphs (d)(3)(i) through (iii) of this section. Monitoring the operation of a nonregenerable carbon adsorption system (*e.g.,* a carbon canister) using a continuous monitoring system is not required when

the carbon canister or the carbon in the control device is replaced on a regular basis according to the requirements in paragraph (d)(4)(iii) of this section.

(i) For a regenerative-type carbon adsorption system:

(A) A continuous parameter monitoring system to measure and record the average total regeneration stream mass flow or volumetric flow during each carbon bed regeneration cycle. The integrating regenerating stream flow monitoring device must have an accuracy of ±10 percent; and

(B) A continuous parameter monitoring system to measure and record the average carbon bed temperature for the duration of the carbon bed steaming cycle and to measure the actual carbon bed temperature after regeneration and within 15 minutes of completing the cooling cycle.

The accuracy of the temperature monitoring device must be ±1 percent of the temperature being measured, expressed in degrees Celsius or ±5°C, whichever is greater.

(ii) A continuous monitoring system to measure and record the daily average concentration level of organic compounds in the exhaust gas stream from the control device. The organic monitoring system must comply either with Performance Specification 8 or 9 in 40 CFR part 60, appendix B. The relative accuracy provision of Performance Specification 8, Sections 2.4 and 3 need not be conducted.

(iii) A continuous monitoring system that measures other alternative operating parameters upon approval of the Administrator as specified in 40 CFR 63.8(f)(1) through (f)(5) of this part.

(4) The owner or operator shall manage the carbon used for the carbon adsorption system, as follows:

(i) Following the initial startup of the control device, all carbon in the control device shall be replaced with fresh carbon on a regular, predetermined time interval that is no longer than the carbon service life established for the carbon adsorption system. The provisions of this paragraph (d)(4)(i) do not apply to a nonregenerable carbon adsorption system (*e.g.,* a carbon canister) for which the carbon canister or the carbon in the control device is replaced on a regular basis according to the requirements in paragraph (d)(4)(iii) of this section.

(ii) The spent carbon removed from the carbon adsorption system must be either regenerated, reactivated, or burned in one of the units specified in paragraphs (d)(4)(ii)(A) through (d)(4)(ii)(G) of this section.

(A) Regenerated or reactivated in a thermal treatment unit for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 264, subpart X.

(B) Regenerated or reactivated in a thermal treatment unit equipped with and operating air emission controls in accordance with this section.

(C) Regenerated or reactivated in a thermal treatment unit equipped with and operating organic air emission controls in accordance with a national emission standard for hazardous air pollutants under another subpart in 40 CFR part 63 or 40 CFR part 61.

(D) Burned in a hazardous waste incinerator for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 264, subpart O.

(E) Burned in a hazardous waste incinerator for which the owner or operator has designed and operates the incinerator in accordance with the interim status requirements of 40 CFR part 265, subpart O.

(F) Burned in a boiler or industrial furnace for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 266, subpart H.

(G) Burned in a boiler or industrial furnace for which the owner or operator has designed and operates the unit in accordance with the interim status requirements of 40 CFR part 266, subpart H.

(iii) As an alternative to meeting the requirements in paragraphs (d)(3) and (d)(4)(i) of this section, an owner or operator of a nonregenerable carbon adsorption system may choose to replace on a regular basis the carbon canister or the carbon in the control device using the procedures in either paragraph (d)(4)(iii)(A) or (d)(4)(iii)(B) of this section. For the purpose of complying with this paragraph (d)(4)(iii), a nonregenerable carbon adsorption system means a carbon adsorption system that does not regenerate the carbon bed directly onsite in the control device, such as a carbon canister. The spent carbon removed from the nonregenerable carbon adsorption system must be managed according to the requirements in paragraph (d)(4)(ii) of this section.

(A) Monitor the concentration level of the organic compounds in the exhaust vent from the carbon adsorption system on a regular schedule, and when carbon breakthrough is indicated, immediately replace either the existing carbon canister with a new carbon canister or replace the existing carbon in the control device with fresh carbon. Measurement of the concentration level of the organic compounds in the exhaust vent stream must be made with a detection instrument that is appropriate for the composition of organic constituents in the vent stream and is routinely calibrated to measure the organic concentration level expected to occur at breakthrough. The monitoring frequency must be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of paragraph (d)(2)(ii)(B) of this section, whichever is longer.

(B) Replace either the existing carbon canister with a new carbon canister or replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of paragraph (d)(2)(ii)(B) of this section.

(e) Condenser control device requirements.

(1) The condenser must achieve the performance specifications in either paragraph (e)(1)(i) or (e)(1)(ii) of this section.

(i) Recover 95 percent or more, on a weight-basis, of the total organic compounds (TOC), less methane and ethane, contained in the vent stream entering the condenser; or

(ii) Recover 95 percent or more, on a weight-basis, of the total HAP, listed in Table 1 of this subpart, contained in the vent stream entering the condenser.

(2) The owner or operator must demonstrate that the condenser achieves the performance requirements in paragraph (e)(1) of this section by either performing a performance test as specified in paragraph (e)(2)(i) of this section or a design analysis as specified in paragraph (e)(2)(ii) of this section.

(i) An owner or operator choosing to use a performance tests to demonstrate compliance must conduct the test in accordance with the requirements of §63.694(l) of this subpart.

(ii) An owner or operator choosing to use a design analysis to demonstrate compliance must include as part of this design analysis the following information: description of the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature; and specification of the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream, and the design average temperatures of the coolant fluid at the condenser inlet and outlet.

(3) The owner or operator must monitor the operation of the condenser in accordance with the requirements of §63.695(e) of this subpart using one of the continuous monitoring systems specified in paragraphs (e)(3)(i) through (e)(3)(iii) of this section.

(i) A continuous parameter monitoring system to measure and record the daily average temperature of the exhaust gases from the control device. The accuracy of the temperature monitoring device shall be ±1 percent of the temperature being measured, expressed in degrees Celsius or ±5°C, whichever is greater.

(ii) A continuous monitoring system to measure and record the daily average concentration level of organic compounds in the exhaust gas stream from the control device. The organic monitoring system must comply either with Performance Specification 8 or 9 in 40 CFR part 60, appendix B. The relative accuracy provision of Performance Specification 8, Sections 2.4 and 3 need not be conducted.

(iii) A continuous monitoring system that measures other alternative operating parameters upon approval of the Administrator as specified in 40 CFR 63.8(f)(1) through (f)(5) of this part.

(f) Vapor incinerator control device requirements.

(1) The vapor incinerator must achieve the performance specifications in either paragraph (f)(1)(i), (f)(1)(ii), or (f)(1)(iii) of this section.

(i) Destroy the total organic compounds (TOC), less methane and ethane, contained in the vent stream entering the vapor incinerator either:

(A) By 95 percent or more, on a weight-basis, or

(B) To achieve a total incinerator outlet concentration for the TOC, less methane and ethane, of less than or equal to ppmv on a dry basis corrected to 3 percent oxygen.

(ii) Destroy the HAP listed in Table 1 of this subpart contained in the vent stream entering the vapor incinerator either:

(A) By 95 percent or more, on a total HAP weight-basis, or

(B) To achieve a total incinerator outlet concentration for the HAP, listed in Table 1 of this subpart, of less than or equal to ppmv on a dry basis corrected to 3 percent oxygen.

(iii) Maintain the conditions in the vapor incinerator combustion chamber at a residence time of 0.5 seconds or longer and at a temperature of 760°C or higher.

(2) The owner or operator must demonstrate that the vapor incinerator achieves the performance requirements in paragraph (f)(1) of this section by either performing a performance test as specified in paragraph (f)(2)(i) of this section or a design analysis as specified in paragraph (f)(2)(ii) of this section.

(i) An owner or operator choosing to use a performance test to demonstrate compliance must conduct the test in accordance with the requirements of §63.694(l) of this subpart.

(ii) An owner or operator choosing to use a design analysis to demonstrate compliance must include as part of this design analysis the information specified in either paragraph (f)(2)(ii)(A) or (f)(2)(ii)(B) of this section as applicable to the vapor incinerator design.

(A) For a thermal vapor incinerator, the design analysis shall address the vent stream composition, constituent concentrations, and flow rate and shall establish the design minimum and average temperatures in the combustion chamber and the combustion chamber residence time.

(B) For a catalytic vapor incinerator, the design analysis shall address the vent stream composition, constituent concentrations, and flow rate and shall establish the design minimum and average temperatures across the catalyst bed inlet and outlet, and the design service life of the catalyst.

(3) The owner or operator must monitor the operation of the vapor incinerator in accordance with the requirements of §63.695(e) of this subpart using one of the continuous monitoring systems specified in paragraphs (f)(3)(i) through (f)(3)(iv) of this section as applicable to the type of vapor incinerator used.

(i) For a thermal vapor incinerator, a continuous parameter monitoring system to measure and record the daily average temperature of the exhaust gases from the control device. The accuracy of the temperature monitoring device must be ±1 percent of the temperature being measured, expressed in degrees Celsius of ±0.5°C, whichever is greater.

(ii) For a catalytic vapor incinerator, a temperature monitoring device capable of monitoring temperature at two locations equipped with a continuous recorder. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

(iii) For either type of vapor incinerator, a continuous monitoring system to measure and record the daily average concentration of organic compounds in the exhaust vent stream from the control device. The organic monitoring system must comply either with Performance Specification 8 or 9 in 40 CFR part 60, appendix B.

The relative accuracy provision of Performance Specification 8, Sections 2.4 and 3 need not be conducted.

(iv) For either type of vapor incinerator, a continuous monitoring system that measures alternative operating parameters other than those specified in paragraph (f)(3)(i) or (f)(3)(ii) of this section upon approval of the Administrator as specified in 40 CFR 63.8(f)(1) through (f)(5) of this part.

(g) Boilers and process heaters control device requirements.

(1) The boiler or process heater must achieve the performance specifications in either paragraph (g)(1)(i), (g)(1)(ii), (g)(1)(iii), (g)(1)(iv), or (g)(1)(v) of this section.

(i) Destroy the total organic compounds (TOC), less methane and ethane, contained in the vent stream introduced into the flame zone of the boiler or process heater either:

(A) By 95 percent or more, on a weight-basis, or

(B) To achieve in the exhausted combustion gases a total concentration for the TOC, less methane and ethane, of less than or equal to 20 parts ppmv on a dry basis corrected to 3 percent oxygen.

(ii) Destroy the HAP listed in Table 1 of this subpart contained in the vent stream entering the vapor incinerator either:

(A) By 95 percent or more, on a total HAP weight-basis, or

(B) To achieve in the exhausted combustion gases a total concentration for the HAP, listed in Table 1 of the subpart, of less than or equal to 20 ppmv on a dry basis corrected to 3 percent oxygen.

(iii) Introduce the vent stream into the flame zone of the boiler or process heater and maintain the conditions in the combustion chamber at a residence time of 0.5 seconds or longer and at a temperature of 760°C or higher.

(iv) Introduce the vent stream with the fuel that provides the predominate heat input to the boiler or process heater (i.e., the primary fuel); or

(v) Introduce the vent stream to a boiler or process heater for which the owner or operator either has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H of this chapter; or has certified compliance with the interim status requirements of 40 CFR part 266, subpart H of this chapter.

(2) The owner or operator must demonstrate that the boiler or process heater achieves the performance specifications in paragraph (g)(1) of this section chosen by the owner or operator using the applicable method specified in paragraph (g)(2)(i) or (g)(2)(ii) of this section.

(i) If an owner or operator chooses to comply with the performance specifications in either paragraph (g)(1)(i), (g)(1)(ii), or (g)(1)(iii) of this section, the owner or operator must demonstrate compliance with the applicable performance specifications by either performing a performance test as specified in paragraph (g)(2)(i)(A) of this section or a design analysis as specified in paragraph (g)(2)(i)(B) of this section.

(A) An owner or operator choosing to use a performance test to demonstrate compliance must conduct the test in accordance with the requirements of §63.694(l) of this subpart.

(B) An owner or operator choosing to use a design analysis to demonstrate compliance must include as part of this design analysis the following information: description of the vent stream composition, constituent concentrations, and flow rate; specification of the design minimum and average flame zone temperatures and combustion zone residence time; and description of the method and location by which the vent stream is introduced into the flame zone.

(ii) If an owner or operator chooses to comply with the performance specifications in either paragraph (g)(1)(iv) or (g)(1)(v) of this section, the owner or operator must demonstrate compliance by maintaining the records that document that the boiler or process heater is designed and operated in accordance with the applicable requirements of this section.

(3) For a boiler or process heater complying with the performance specifications in either paragraph (g)(1)(i), (g)(1)(ii), or (g)(1)(iii) of this section, the owner or operator must monitor the operation of a boiler or process heater in accordance with the requirements of §63.695(e) of this subpart using one of the continuous monitoring systems specified in paragraphs (g)(3)(i) through (g)(3)(iii) of this section.

(i) A continuous parameter monitoring system to measure and record the daily average combustion zone temperature. The accuracy of the temperature sensor must be ±1 percent of the temperature being measured, expressed in degrees Celsius or ±0.5°C, whichever is greater;

(ii) A continuous monitoring system to measure and record the daily average concentration of organic compounds in the exhaust vent stream from the control device. The organic monitoring system must comply either with Performance Specification 8 or 9 in 40 CFR part 60, appendix B. The relative accuracy provision of Performance Specification 8, Sections 2.4 and 3 need not be conducted.

(iii) A continuous monitoring system that measures alternative operating parameters other than those specified in paragraph (g)(3)(i) or (g)(3)(ii) of this section upon approval of the Administrator as specified in 40 CFR 63.8(f)(1) through (f)(5) of this part.

(h) Flare control device requirements.

(1) The flare must be designed and operated in accordance with the requirements in 40 CFR 63.11(b).

(2) The owner or operator must demonstrate that the flare achieves the requirements in paragraph (h)(1) of this section by performing the procedures specified in paragraph (h)(2)(i) of this section. A previous compliance demonstration for the flare that meets all of the conditions specified in paragraph (h)(2)(ii)

of this section may be used by an owner or operator to demonstrate compliance with this paragraph (h)(2).

(i) To demonstrate that a flare achieves the requirements in paragraph (h)(1) of this section, the owner or operator performs all of the procedures specified in paragraphs (h)(2)(i)(A) through (h)(2)(i)(C) of this section.

(A) The owner or operator conducts a visible emission test for the flare in accordance with the requirements specified in 40 CFR 63.11(b)(4).

(B) The owner or operator determines the net heating value of the gas being combusted in the flare in accordance with the requirements specified in 40 CFR 63.11(b)(6); and

(C) The owner or operator determines the flare exit velocity in accordance with the requirements applicable to the flare design as specified in 40 CFR 63.11(b)(7) or 40 CFR 63.11(b)(8).

(ii) A previous compliance demonstration for the flare may be used by an owner or operator to demonstrate compliance with paragraph (h)(2) of this section provided that all conditions for the compliance determination and subsequent flare operation are met as specified in paragraphs (h)(2)(ii)(A) and (h)(2)(ii)(B) of this section.

(A) The owner or operator conducted the compliance determination using the procedures specified in paragraph (h)(2)(i) of this section.

(B) No flare operating parameter or process changes have occurred since completion of the compliance determination which could affect the compliance determination results.

(3) The owner or operator must monitor the operation of the flare using a heat sensing monitoring device (including but not limited to a thermocouple, ultraviolet beam sensor, or infrared sensor) that continuously detects the presence of a pilot flame. The owner or operator must record, for each 1-hour period, whether the monitor was continuously operating and whether a pilot flame was continuously present during each hour as required in §63.696(b)(3) of this subpart.

§63.694 Testing methods and procedures.

(a) This section specifies the testing methods and procedures required for this subpart to perform the following:

(1) To determine the average VOHAP concentration for off-site material streams at the point-of-delivery for compliance with standards specified §63.683 of this subpart, the testing methods and procedures are specified in paragraph (b) of this section.

(2) To determine the average VOHAP concentration for treated off-site material streams at the point-of-treatment for compliance with standards specified §63.684 of this subpart, the testing methods and procedures are specified in paragraph (c) of this section.

(3) To determine the treatment process VOHAP concentration limit (CR) for compliance with standards specified §63.684 of this subpart, the testing methods and procedures are specified in paragraph (d) of this section.

(4) To determine treatment process required HAP removal rate (RMR) for compliance with standards specified §63.684 of this subpart, the testing methods and procedures are specified in paragraph (e) of this section.

(5) To determine treatment process actual HAP removal rate (MR) for compliance with standards specified §63.684 of this subpart, the testing methods and procedures are specified in paragraph (f) of this section.

(6) To determine treatment process required HAP reduction efficiency (R) for compliance with standards specified in §63.684 of this subpart, the testing methods and procedures are specified in paragraph (g) of this section.

(7) To determine treatment process required HAP biodegradation efficiency (Rbio) for compliance with standards specified in §63.684 of this subpart, the testing methods and procedures are specified in paragraph (h) of this section.

(8) To determine treatment process required actual HAP mass removal rate (MRbio) for compliance with standards specified in §63.684 of this subpart, the testing methods and procedures are specified in paragraph (i) of this section.

(9) To determine maximum organic HAP vapor pressure of off-site materials in tanks for compliance with the standards specified in §63.685 of this subpart, the testing methods and procedures are specified in paragraph (j) of this section.

(10) To determine no detectable organic emissions, the testing methods and procedures are specified in paragraph (k) of this section.

(11) To determine closed-vent system and control device performance for compliance with the standards specified in §63.693 of this subpart, the testing methods and procedures are specified in paragraph (l) of this section.

(12) To determine process vent stream flow rate and total organic HAP concentration for compliance with the standards specified in §63.693 of this subpart, the testing methods and procedures are specified in paragraph (m) of this section.

(b) Testing methods and procedures to determine average VOHAP concentration of an off-site material stream at the point-of-delivery.

(1) The average VOHAP concentration of an off-site material at the point-of-delivery shall be determined using either direct measurement as specified in paragraph (b)(2) of this section or by knowledge as specified in paragraph (b)(3) of this section.

(2) *Direct measurement to determine VOHAP concentration* -- (i) *Sampling.* Samples of the off-site material stream shall be collected from the container, pipeline, or other device used to deliver the off-site material stream to the plant site in a manner such that volatilization of organics contained in the sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

(A) The averaging period to be used for determining the average VOHAP concentration for the off-site material stream on a mass-weighted average basis shall be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the off-site material stream but shall not exceed 1 year.

(B) A sufficient number of samples, but no less than four samples, shall be collected to represent the complete range of HAP compositions and HAP quantities that occur in the off-site material stream during the entire averaging period due to normal variations in the operating conditions for the source or process generating the off-site material stream. Examples of such normal variations are seasonal variations in off-site material quantity or fluctuations in ambient temperature.

(C) All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the off-site material stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the plant site operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 or Method 25D in 40 CFR part 60, appendix A.

(ii) *Analysis.* Each collected sample must be prepared and analyzed in accordance with one of the following methods as applicable to the sampled off-site material for the purpose of measuring the HAP listed in Table 1 of this subpart:

(A) Method 305 in 40 CFR part 63, appendix A.

(B) Method 25D in 40 CFR part 60, appendix A.

(C) Method 624 in 40 CFR part 136, appendix A. If this method is used to analyze one or more compounds that are not on the method's published list of approved compounds, the Alternative Test Procedure specified in 40 CFR 136.4 and 40 CFR 136.5 must be followed.

(D) Method 625 in 40 CFR part 136, appendix A. For the purpose of using this method to comply with this subpart, the owner or operator must perform corrections to these compounds based on the "accuracy as recovery" using the factors in Table 7 of the method. If this method is used to analyze one or more compounds that are not on the method's published list of approved compounds, the Alternative Test Procedure specified in 40 CFR 136.4 and 40 CFR 136.5 must be followed.

(E) Method 1624 in 40 CFR part 136, appendix A.

(F) Method 1625 in 40 CFR part 136, appendix A.

(G) Method 8260 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846, Third Edition, September 1986, as amended by Update I, November 15, 1992. As an alternative, an owner or operator may use any more recent, updated version of Method 8260 approved by the EPA. For the purpose of using Method 8260 to comply with this subpart, the owner or operator must maintain a formal quality assurance program consistent with section 8 of Method 8260, and this program must include the following elements related to measuring the concentrations of volatile compounds:

(*1*) Documentation of site-specific procedures to minimize the loss of compounds due to volatilization, biodegradation, reaction, or sorption during the sample collection, storage, and preparation steps.

(*2*) Documentation of specific quality assurance procedures followed during sampling, sample preparation, sample introduction, and analysis.

(*3*) Measurement of the average accuracy and precision of the specific procedures, including field duplicates and field spiking of the off-site material source before or during sampling with compounds having similar chemical characteristics to the target analytes.

(H) Method 8270 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846, Third Edition, September 1986, as amended by Update I, November 15, 1992. As an alternative, an owner or operator may use any more recent, updated version of Method 8270 approved by the EPA. For the purpose of using Method 8270 to comply with this subpart, the owner or operator must maintain a formal quality assurance program consistent with Method 8270, and this program must include the following elements related to measuring the concentrations of volatile compounds:

(*1*) Documentation of site-specific procedures to minimize the loss of compounds due to volatilization, biodegradation, reaction, or sorption during the sample collection, storage, and preparation steps.

(*2*) Documentation of specific quality assurance procedures followed during sampling, sample preparation, sample introduction, and analysis.

(*3*) Measurement of the average accuracy and precision of the specific procedures, including field duplicates and field spiking of the off-site material source before or during sampling with compounds having similar chemical characteristics to the target analytes.

(I) Any other analysis method that has been validated in accordance with the procedures specified in section 5.1 and section 5.3 and the corresponding calculations in section 6.1 or section 6.3 of Method 301 in appendix A in 40 CFR part 63. The data are acceptable if they meet the criteria specified in section 6.1.5 or section 6.3.3 of Method 301. If correction is required under section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range of 0.7 to 1.30. Other sections of Method 301 are not required.

(iii) *Calculations.* The average VOHAP concentration (C) on a mass-weighted basis shall be calculated by using the results for all samples analyzed in accordance with paragraph (b)(2)(ii) of this section and the following equation. An owner or operator using a test method that provides species-specific chemical concentrations may adjust the measured concentrations to the corresponding concentration values which would be obtained had the off-site material samples been analyzed using Method 305. To adjust these data, the measured concentration for each individual HAP chemical species contained in the off-site material is multiplied by the appropriate species-specific adjustment factor (fm305) listed in Table 1 of this subpart.

$$C = \frac{1}{Q_T} \times \sum_{i=1}^{n} (Q_i \times C_i)$$

where:

C = Average VOHAP concentration of the off-site material at the point-of-delivery on a mass-weighted basis, ppmw.

i = Individual sample "i" of the off-site material.

n = Total number of samples of the off-site material collected (at least 4) for the averaging period (not to exceed 1 year).

Qi = Mass quantity of off-site material stream represented by Ci, kg/hr.

QT = Total mass quantity of off-site material during the averaging period, kg/hr.

Ci = Measured VOHAP concentration of sample "i" as determined in accordance with the requirements of §63.694(a), ppmw.

(3) Knowledge of the off-site material to determine VOHAP concentration.

(i) Documentation shall be prepared that presents the information used as the basis for the owner's or operator's knowledge of the off-site material stream's average VOHAP concentration. Examples of information that may be used as the basis for knowledge include: material balances for the source or process generating the off-site material stream; species-specific chemical test data for the off-site material stream from previous testing that are still applicable to the current off-site material stream; previous test data for other locations managing the same type of off-site material stream; or other knowledge based on information in documents such as manifests, shipping papers, or waste certification notices.

(ii) If test data are used as the basis for knowledge, then the owner or operator shall document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VOHAP concentration. For example, an owner or operator may use HAP concentration test data for the off-site material stream that are validated in

accordance with Method 301 in 40 CFR part 63, appendix A of this part as the basis for knowledge of the off-site material.

(iii) An owner or operator using species-specific chemical concentration test data as the basis for knowledge of the off-site material may adjust the test data to the corresponding average VOHAP concentration value which would be obtained had the off-site material samples been analyzed using Method 305. To adjust these data, the measured concentration for each individual HAP chemical species contained in the off-site material is multiplied by the appropriate species-specific adjustment factor (fm305) listed in Table 1 of this subpart.

(iv) In the event that the Administrator and the owner or operator disagree on a determination of the average VOHAP concentration for an off-site material stream using knowledge, then the results from a determination of VOHAP concentration using direct measurement as specified in paragraph (b)(2) of this section shall be used to establish compliance with the applicable requirements of this subpart. The Administrator may perform or request that the owner or operator perform this determination using direct measurement.

(c) Determination of average VOHAP concentration of an off-site material stream at the point-of-treatment.

(1) *Sampling.* Samples of the off-site material stream shall be collected at the point-of-treatment in a manner such that volatilization of organics contained in the sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

(i) The averaging period to be used for determining the average VOHAP concentration for the off-site material stream on a mass-weighted average basis shall be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the off-site material stream but shall not exceed 1 year.

(ii) A sufficient number of samples, but no less than four samples, shall be collected to represent the complete range of HAP compositions and HAP quantities that occur in the off-site material stream during the entire averaging period due to normal variations in the operating conditions for the treatment process. Examples of such normal variations are seasonal variations in off-site material quantity or fluctuations in ambient temperature.

(iii) All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the off-site material stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the plant site operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 or Method 25D in 40 CFR part 60, appendix A.

(2) *Analysis.* Each collected sample must be prepared and analyzed in accordance with one of the methods specified in paragraphs (b)(2)(ii)(A) through (b)(2)(ii)(I) of this section, as applicable to the sampled off-site material, for the purpose of measuring the HAP listed in Table 1 of this subpart.

(3) *Calculations.* The average VOHAP concentration (C) a mass-weighted basis shall be calculated by using the results for all samples analyzed in accordance with paragraph (c)(2) of this section and the following equation. An owner or operator using a test method that provides species-specific chemical concentrations may adjust the measured concentrations to the corresponding concentration values which would be obtained had the off-site material samples been analyzed using Method 305. To adjust these data, the measured concentration for each individual HAP chemical species contained in the off-site material is multiplied by the appropriate species-specific adjustment factor (fm305) listed in Table 1 of this subpart.

$$\bar{C} = \frac{1}{Q_T} \times \sum_{i=1}^{n} (Q_i \times C_i)$$

where:

C = Average VOHAP concentration of the off-site material on a mass-weighted basis, ppmw.

i = Individual sample "i" of the off-site material.

n = Total number of samples of the off-site material collected (at least 4) for the averaging period (not to exceed 1 year).

Qi = Mass quantity of off-site material stream represented by Ci, kg/hr.

QT = Total mass quantity of off-site material during the averaging period, kg/hr.

Ci = Measured VOHAP concentration of sample "i" as determined in accordance with the requirements of §63.694(a), ppmw.

(d) *Determination of treatment process VOHAP concentration limit* (CR). (1) All of the off-site material streams entering the treatment process shall be identified.

(2) The average VOHAP concentration of each off-site material stream at the point-of-delivery shall be determined using the procedures specified in paragraph (b) of this section.

(3) The VOHAP concentration limit (CR) shall be calculated by using the results determined for each individual off-site material stream and the following equation:

$$C_R = \frac{\sum_{x=1}^{m}\left(Q_x \times \bar{C}_x\right) + \sum_{y=1}^{n}\left(Q_y \times 500\ ppmw\right)}{\sum_{x=1}^{m} Q_x + \sum_{y=1}^{n} Q_y}$$

where:

CR=VOHAP concentration limit, ppmw.

x=Individual off-site material stream "x" that has a VOHAP concentration less than 500 ppmw at the point-of-delivery.

y=Individual off-site material stream "y" that has a VOHAP concentration equal to or greater than 500 ppmw at the point-of-delivery.

m=Total number of "x" off-site material streams treated by process.

n=Total number of "y" off-site material streams treated by process.

Qx=Total mass quantity of off-site material stream "x", kg/yr.

Qy=Total mass quantity of off-site material stream "y", kg/yr.

C x=VOHAP concentration of off-site material stream "x" at the point-of-delivery, ppmw.

(e) Determination of required HAP mass removal rate (RMR).

(1) Each individual stream containing HAP that enters the treatment process shall be identified.

(2) The average VOHAP concentration at the point-of-delivery for each stream identified in paragraph (e)(1) of this section shall be determined using the test methods and procedures specified in paragraph (b) of this section.

(3) For each stream identified in paragraph (e)(1) of this section that has an average VOHAP concentration equal to or greater than 500 ppmw at the point-of-delivery, the average volumetric flow rate and the density of the off-site material stream at the point-of-delivery shall be determined.

(4) The required HAP mass removal rate (RMR) shall be calculated by using the average VOHAP concentration, average volumetric flow rate, and density determined in paragraph (e)(3) of this section for each stream and the following equation:

$$RMR = \sum_{y=1}^{n} \left[V_y \times k_y \times \frac{\left(\overline{C_y} - 500\ ppmw \right)}{10^6} \right]$$

where:

RMR = Required HAP mass removal rate, kg/hr.

y = Individual stream "y" that has a VOHAP concentration equal to or greater than 500 ppmw at the point-of-delivery as determined in §63.694(b).

n = Total number of "y" streams treated by process.

Vy = Average volumetric flow rate of stream "y" at the point-of-delivery, m^3/hr.

ky = Density of stream "y", kg/m^3.

Cy = Average VOHAP concentration of stream "y" at the point-of-delivery as determined in §63.694(b)(2), ppmw.

(f) Determination of actual HAP mass removal rate (MR).

(1) The actual HAP mass removal rate (MR) shall be determined based on results for a minimum of three consecutive runs. The sampling time for each run shall be 1 hour.

(2) The HAP mass flow entering the process (Eb) and the HAP mass flow exiting the process (Ea) shall be determined using the test methods and procedures specified in paragraphs (g)(2) through (g)(4) of this section.

(3) The actual mass removal rate shall be calculated using the HAP mass flow rates determined in paragraph (f)(2) of this section and the following equation:

$$MR = Eb\,!\,Ea$$

where:

MR = Actual HAP mass removal rate, kg/hr.

Eb = HAP mass flow entering process as determined in paragraph (f)(2) of this section, kg/hr.

Ea = HAP mass flow exiting process as determined in paragraph (f)(2) of this section, kg/hr.

(g) Determination of treatment process HAP reduction efficiency (R).

(1) The HAP reduction efficiency (R) for a treatment process shall be determined based on results for a minimum of three consecutive runs.

(2) Each individual stream containing HAP that enters the treatment process shall be identified. Each individual stream containing HAP that exits the treatment process shall be identified. The owner or operator shall prepare a sampling plan for measuring the identified streams that accurately reflects the retention time of the material in the process.

(3) For each run, information shall be determined for each stream identified in paragraph (g)(2) of this section as specified in paragraphs (g)(3)(i) through (g)(3)(iii) of this section.

(i) The mass quantity shall be determined for each stream identified in paragraph (g)(2) of this section as entering the process (Qb). The mass quantity shall be determined for each stream identified in paragraph (g)(2) of this section as exiting the process (Qa).

(ii) The average VOHAP concentration at the point-of-delivery shall be determined for each stream entering the process (Cb) (as identified in paragraph (g)(2) of this section) using the test methods and procedures specified in paragraph (b) of this section.

(iii) The average VOHAP concentration at the point-of-treatment shall be determined for each stream exiting the process (Ca) (as identified in paragraph (g)(2) of this section) using the test methods and procedures specified in paragraph (c) of this section.

(4) The HAP mass flow entering the process (Eb) and the HAP mass flow exiting the process (Ea) shall be calculated using the results determined in paragraph (g)(3) of this section and the following equations:

$$E_a = \frac{1}{10^6}\sum_{j=1}^{m}\left(Q_{aj} \times \overline{C_{aj}}\right)$$

$$E_b = \frac{1}{10^6}\sum_{j=1}^{m}\left(Q_{bj} \times \overline{C_{bj}}\right)$$

where:

Eb = HAP mass flow entering process, kg/hr.

Ea = HAP mass flow exiting process, kg/hr.

m = Total number of runs (at least 3)

j = Individual run "j"

Qbj = Mass quantity of material entering process during run "j", kg/hr.

Qaj = Average mass quantity of material exiting process during run "j", kg/hr.

Caj = Average VOHAP concentration of material exiting process during run "j" as determined in §63.694(c), ppmw.

Cbj = Average VOHAP concentration of material entering process during run "j" as determined in §63.694(b)(2), ppmw.

(5) The HAP reduction efficiency (R) shall be calculated using the HAP mass flow rates determined in paragraph (g)(4) of this section and the following equation:

$$R = \frac{E_b - E_a}{E_b} \times 100$$

where:

R = HAP reduction efficiency, percent.

Eb = HAP mass flow entering process as determined in paragraph (g)(4) of this section, kg/hr.

Ea = HAP mass flow exiting process as determined in accordance with the requirements of paragraph (g)(4) of this section, kg/hr.

(h) Determination of HAP biodegradation efficiency (Rbio).

(1) The fraction of HAP biodegraded (Fbio) shall be determined using one of the procedures specified in appendix C of this part 63.

(2) The HAP biodegradation efficiency (Rbio) shall be calculated by using the following equation:

Rbio ! Fbio×100

where:

Rbio = HAP biodegradation efficiency, percent.

Fbio = Fraction of HAP biodegraded as determined in paragraph (h)(1) of this section.

(i) Determination of actual HAP mass removal rate (MRbio).

(1) The actual HAP mass removal rate (MRbio) shall be determined based on results for a minimum of three consecutive runs. The sampling time for each run shall be 1 hour.

(2) The HAP mass flow entering the process (Eb) shall be determined using the test methods and procedures specified in paragraphs (g)(2) through (g)(4) of this section.

(3) The fraction of HAP biodegraded (Fbio) shall be determined using the procedure specified in 40 CFR part 63, appendix C of this part.

(4) The actual mass removal rate shall be calculated by using the HAP mass flow rates and fraction of HAP biodegraded determined in paragraphs (i)(2) and (i)(3), respectively, of this section and the following equation:

$$MRbio = Eb \times Fbio$$

where:

MRbio = Actual HAP mass removal rate, kg/hr.

Eb = HAP mass flow entering process, kg/hr.

Fbio = Fraction of HAP biodegraded.

(j) *Determination of maximum HAP vapor pressure for off-site material in a tank.* (1) The maximum HAP vapor pressure of the off-site material composition managed in a tank shall be determined using either direct measurement as specified in paragraph (j)(2) of this section or by knowledge of the off-site material as specified by paragraph (j)(3) of this section.

(2) Direct measurement to determine the maximum HAP vapor pressure of an off-site material.

(i) Sampling. A sufficient number of samples shall be collected to be representative of the off-site material contained in the tank. All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the off-site material is collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the plant site operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 or Method 25D in 40 CFR part 60, appendix A.

(ii) Analysis. Any one of the following methods may be used to analyze the samples and compute the maximum HAP vapor pressure of the off-site material:

(A) Method 25E in 40 CFR part 60 appendix A;

(B) Methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss from External Floating Roof Tanks,";

(C) Methods obtained from standard reference texts;

(D) ASTM Method 2879-83; or

(E) Any other method approved by the Administrator.

(3) Use of knowledge to determine the maximum HAP vapor pressure of the off-site material. Documentation shall be prepared and recorded that presents the information used as the basis for the owner's or operator's knowledge that the maximum HAP vapor pressure of the off-site material is less than the maximum vapor pressure limit listed in Table 3 or Table 4 of this subpart for the applicable tank design capacity category. Examples of information that may be used include: the off-site material is generated by a process for which at other locations it previously has been determined by direct measurement that the off-site material maximum HAP vapor pressure is less than the maximum vapor pressure limit for the appropriate tank design capacity category.

(k) Procedure for determining no detectable organic emissions for the purpose of complying with this subpart.

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the unit contains a material having a total organic concentration representative of the range of concentrations for the materials expected to be managed in the unit. During the test, the cover and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the organic constituents in the material placed in the unit, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air (less than 10 ppmv hydrocarbon in air); and

(ii) A mixture of methane or n-hexane in air at a concentration of approximately, but less than, 10,000 ppmv.

(6) An owner or operator may choose to adjust or not adjust the detection instrument readings to account for the background organic concentration level. If an owner or operator chooses to adjust the instrument readings for the background level, the background level value must be determined according to the procedures in Method 21 of 40 CFR part 60, appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(8) An owner or operator must determine if a potential leak interface operates with no detectable emissions using the applicable procedure specified in paragraph (k)(8)(i) or (k)(8)(ii) of this section.

(i) If an owner or operator chooses not to adjust the detection instrument readings for the background organic concentration level, then the maximum organic concentration value measured by the detection instrument is compared directly to the applicable value for the potential leak interface as specified in paragraph (k)(9) of this section.

(ii) If an owner or operator chooses to adjust the detection instrument readings for the background organic concentration level, the value of the arithmetic difference between the maximum organic concentration value measured by the instrument and the background organic concentration value as determined in paragraph (k)(6) of this section is compared with the applicable value for the potential leak interface as specified in paragraph (k)(9) of this section.

(9) A potential leak interface is determined to operate with no detectable emissions using the applicable criteria specified in paragraphs (k)(9)(i) and (k)(9)(ii) of this section.

(i) For a potential leak interface other than a seal around a shaft that passes through a cover opening, the potential leak interface is determined to operate with no detectable organic emissions if the organic concentration value determined in paragraph (k)(8) is less than 500 ppmv.

(ii) For a seal around a shaft that passes through a cover opening, the potential leak interface is determined to operate with no detectable organic emissions if the organic concentration value determined in paragraph (k)(8) is less than 10,000 ppmv.

(l) Control device performance test procedures.

(1) Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling sites at the inlet and outlet of the control device.

(i) To determine compliance with a control device percent reduction requirement, sampling sites shall be located at the inlet of the control device as specified in paragraphs (l)(1)(i)(A) and (l)(1)(i)(B) of this section, and at the outlet of the control device.

(A) The control device inlet sampling site shall be located after the final product recovery device.

(B) If a vent stream is introduced with the combustion air or as a auxiliary fuel into a boiler or process heater, the location of the inlet sampling sites shall be selected to ensure that the measurement of total

HAP concentration or TOC concentration, as applicable, includes all vent streams and primary and secondary fuels introduced into the boiler or process heater.

(ii) To determine compliance with an enclosed combustion device concentration limit, the sampling site shall be located at the outlet of the device.

(2) The gas volumetric flow rate shall be determined using Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A, as appropriate.

(3) To determine compliance with the control device percent reduction requirement, the owner or operator shall use Method 18 of 40 CFR part 60, appendix A of this chapter; alternatively, any other method or data that has been validated according to the applicable procedures in Method 301 in 40 CFR part 63, appendix A of this part may be used. The following procedures shall be used to calculate percent reduction efficiency:

(i) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time such as 15 minute intervals during the run.

(ii) The mass rate of either TOC (minus methane and ethane) or total HAP (Ei and Eo ,respectively) shall be computed.

(A) The following equations shall be used:

$$E_i = K_2 \times Q_i \times \sum_{j=1}^{n} \left(C_{ij} \times M_{ij} \right)$$

$$E_o = K_2 \times Q_o \times \sum_{j=1}^{n} \left(C_{oj} \times M_{oj} \right)$$

where:

Cij, Coj = Concentration of sample component j of the gas stream at the inlet and outlet of the control device, respectively, dry basis, parts per million by volume.

Ei, Eo = Mass rate of TOC (minus methane and ethane) or total HAP at the inlet and outlet of the control device, respectively, dry basis, kilogram per hour.

Mij, Moj = Molecular weight of sample component j of the gas stream at the inlet and outlet of the control device, respectively, gram/gram-mole.

Qi, Qo = Flow rate of gas stream at the inlet and outlet of the control device, respectively, dry standard cubic meter per minute.

K2 = Constant, $2.494 \times 10^{\wedge 6}$ (parts per million)^{11} (gram-mole per standard cubic meter) (kilogram/gram) (minute/hour), where standard temperature (gram-mole per standard cubic meter) is 20 °C.

(B) When the TOC mass rate is calculated, all organic compounds (minus methane and ethane) measured by Method 18 of 40 CFR part 60, appendix A shall be summed using the equation in paragraph (l)(3)(ii)(A) of this section.

(C) When the total HAP mass rate is calculated, only the HAP constituents shall be summed using the equation in paragraph (l)(3)(ii)(A) of this section.

(iii) The percent reduction in TOC (minus methane and ethane) or total HAP shall be calculated as follows:

$$R_{cd} = \frac{E_i - E_o}{E_i} \times 100$$

where:

Rcd=Control efficiency of control device, percent.

Ei=Mass rate of TOC (minus methane and ethane) or total HAP at the inlet to the control device as calculated under paragraph (l)(3)(ii) of this section, kilograms TOC per hour or kilograms HAP per hour.

Eo=Mass rate of TOC (minus methane and ethane) or total HAP at the outlet of the control device, as calculated under paragraph (l)(3)(ii) of this section, kilograms TOC per hour or kilograms HAP per hour.

(iv) If the vent stream entering a boiler or process heater is introduced with the combustion air or as a secondary fuel, the weight-percent reduction of total HAP or TOC (minus methane and ethane) across the device shall be determined by comparing the TOC (minus methane and ethane) or total HAP in all combusted vent streams and primary and secondary fuels with the TOC (minus methane and ethane) or total HAP exiting the device, respectively.

(4) To determine compliance with the enclosed combustion device total HAP concentration limit of this subpart, the owner or operator shall use Method 18 of 40 CFR part 60, appendix A to measure either TOC (minus methane and ethane) or total HAP. Alternatively, any other method or data that has been validated according to Method 301 in appendix A of this part, may be used. The following procedures shall be used to calculate parts per million by volume concentration, corrected to 3 percent oxygen:

(i) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15 minute intervals during the run.

(ii) The TOC concentration or total HAP concentration shall be calculated according to paragraph (m)(4)(ii)(A) or (m)(4)(ii)(B) of this section.

(A) The TOC concentration (CTOC) is the sum of the concentrations of the individual components and shall be computed for each run using the following equation:

$$C_{TOC} = \sum_{i=1}^{x} \frac{\sum_{j=1}^{n} C_{ij}}{x}$$

where:

CTOC=Concentration of total organic compounds minus methane and ethane, dry basis, parts per million by volume.

Cji=Concentration of sample components j of sample i, dry basis, parts per million by volume.

n=Number of components in the sample.

x=Number of samples in the sample run.

(B) The total HAP concentration (CHAP) shall be computed according to the equation in paragraph (l)(4)(ii)(A) of this section except that only HAP constituents shall be summed.

(iii) The measured TOC concentration or total HAP concentration shall be corrected to 3 percent oxygen as follows:

(A) The emission rate correction factor or excess air, integrated sampling and analysis procedures of Method 3B of 40 CFR part 60, appendix A shall be used to determine the oxygen concentration (%O2dry). The samples shall be collected during the same time that the samples are collected for determining TOC concentration or total HAP concentration.

(B) The concentration corrected to 3 percent oxygen (Cc) shall be computed using the following equation:

$$C_c = C_m \left(\frac{17.9}{20.9 - \%0_{2dry}} \right)$$

where:

Cc=TOC concentration or total HAP concentration corrected to 3 percent oxygen, dry basis, parts per million by volume.

Cm=Measured TOC concentration or total HAP concentration, dry basis, parts per million by volume.

%O2dry=Concentration of oxygen, dry basis, percent by volume.

(m) Determination of process vent stream flow rate and total HAP concentration.

(1) Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate, must be used for selection of the sampling site.

(2) No traverse site selection method is needed for vents smaller than 0.10 meter in diameter.

(3) Process vent stream gas volumetric flow rate must be determined using Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A, as appropriate.

(4) Process vent stream total HAP concentration must be measured using the following procedures:

(i) Method 18 of 40 CFR part 60, appendix A, must be used to measure the total HAP concentration. Alternatively, any other method or data that has been validated according to the protocol in Method 301 of appendix A of this part may be used.

(ii) Where Method 18 of 40 CFR part 60, appendix A, is used, the following procedures must be used to calculate parts per million by volume concentration:

(A) The minimum sampling time for each run must be 1 hour in which either an integrated sample or four grab samples must be taken. If grab sampling is used, then the samples must be taken at approximately equal intervals in time, such as 15 minute intervals during the run.

(B) The total HAP concentration (CHAP) must be computed according to the following equation:

$$C_{HAP} = \frac{\sum_{i=1}^{x}\left(\sum_{j=1}^{n} C_{ji}\right)}{X}$$

where:

CHAP = Total concentration of HAP compounds listed in Table 1 of this subpart, dry basis, parts per million by volume.

Cji = Concentration of sample component j of the sample i, dry basis, parts per million by volume.

n = Number of components in the sample.

x = Number of samples in the sample run.

§63.695 Inspection and monitoring requirements.

(a) This section specifies the inspection and monitoring procedures required to perform the following:

(1) To inspect tank fixed roofs and floating roofs for compliance with the Tank Level 2 controls standards specified in §63.685 of this subpart, the inspection procedures are specified in paragraph (b) of this section.

(2) To inspect and monitor closed-vent systems for compliance with the standards specified in §63.693 of this subpart, the inspection and monitoring procedures are specified in paragraph (c) of this section.

(3) To inspect and monitor transfer system covers for compliance with the standards specified in §63.689(c)(1) of this subpart, the inspection and monitoring procedures are specified in paragraph (d) of this section.

(4) To monitor and record off-site material treatment processes for compliance with the standards specified in 63.684(e), the monitoring procedures are specified in paragraph (e) of this section.

(b) Tank Level 2 fixed roof and floating roof inspection requirements.

(1) Owners and operators that use a tank equipped with an internal floating roof in accordance with the provisions of §63.685(e) of this subpart shall meet the following inspection requirements:

(i) The floating roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, the internal floating roof is not floating on the surface of the liquid inside the tank; liquid has accumulated on top of the internal floating roof; any portion of the roof seals have detached from the roof rim; holes, tears, or other openings are visible in the seal fabric; the gaskets no longer close off the waste surfaces from the atmosphere; or the slotted membrane has more than 10 percent open area.

(ii) The owner or operator shall inspect the internal floating roof components as follows except as provided for in paragraph (b)(1)(iii) of this section:

(A) Visually inspect the internal floating roof components through openings on the fixed-roof (e.g., manholes and roof hatches) at least once every calendar year after initial fill, and

(B) Visually inspect the internal floating roof, primary seal, secondary seal (if one is in service), gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every 10 years. Prior to each inspection, the owner or operator shall notify the Administrator in accordance with the reporting requirements specified in §§63.697 of this subpart.

(iii) As an alternative to performing the inspections specified in paragraph (b)(1)(ii) of this section for an internal floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every 5 years. Prior to each inspection, the owner or operator shall notify the Administrator in accordance with the reporting requirements specified in §63.697 of this subpart.

(iv) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b)(4) of this section.

(v) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in §63.696 of this subpart.

(2) Owners and operators that use a tank equipped with an external floating roof in accordance with the provisions of §63.685(f) of this subpart shall meet the following requirements:

(i) The owner or operator shall measure the external floating roof seal gaps in accordance with the following requirements:

(A) The owner or operator shall perform measurements of gaps between the tank wall and the primary seal within 60 days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every 5 years. Prior to each inspection, the owner or operator shall notify the Administrator in accordance with the reporting requirements specified in §63.697 of this subpart.

(B) The owner or operator shall perform measurements of gaps between the tank wall and the secondary seal within 60 days after initial operation of the separator following installation of the floating roof and, thereafter, at least once every year. Prior to each inspection, the owner or operator shall notify the Administrator in accordance with the reporting requirements specified in §63.697 of this subpart.

(C) If a tank ceases to hold off-site material for a period of 1 year or more, subsequent introduction of off-site material into the tank shall be considered an initial operation for the purposes of paragraphs (b)(2)(i)(A) and (b)(2)(i)(B) of this section.

(D) The owner shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the following procedure.

(*1*) The seal gap measurements shall be performed at one or more floating roof levels when the roof is floating off the roof supports.

(*2*) Seal gaps, if any, shall be measured around the entire perimeter of the floating roof in each place where a 0.32-centimeter (cm) (1/8-inch) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location.

(*3*) For a seal gap measured under paragraph (b)(2) of this section, the gap surface area shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(*4*) The total gap area shall be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type as specified in §63.685(f)(1) of this subpart.

(E) In the event that the seal gap measurements do not conform to the specifications in §63.685(f)(1) of this subpart, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b)(4) of this section.

(F) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in §63.696 of this subpart.

(ii) The owner or operator shall visually inspect the external floating roof in accordance with the following requirements:

(A) The floating roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to: holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(B) The owner or operator shall perform the inspections following installation of the external floating roof and, thereafter, at least once every year.

(C) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b)(4) of this section.

(D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in §63.696(d) of this subpart.

(3) Owners and operators that use a tank equipped with a fixed roof in accordance with the provisions of §63.685(g) of this subpart shall meet the following requirements:

(i) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. In the case when a tank is buried partially or entirely underground, inspection is required only for those portions of the cover that extend to or above the ground surface, and those connections that are on such portions of the cover (e.g., fill ports, access hatches, gauge wells, etc.) and can be opened to the atmosphere.

(ii) The owner or operator must perform an initial inspection following installation of the fixed roof. Thereafter, the owner or operator must perform the inspections at least once every calendar year except as provided for in paragraph (f) of this section.

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b)(4) of this section.

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in §63.696(e) of this subpart.

(4) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of paragraph (b)(1), (b)(2), or (b)(3) of this section in the following manner:

(i) The owner or operator shall within 45 calendar days of detecting the defect either repair the defect or empty the tank and remove it from service. If within this 45-day period the defect cannot be repaired or the tank cannot be removed from service without disrupting operations at the plant site, the owner or operator is allowed two 30-day extensions. In cases when an owner or operator elects to use a 30-day extension, the owner or operator shall prepare and maintain documentation describing the defect, explaining why alternative storage capacity is not available, and specify a schedule of actions that will ensure that the control equipment will be repaired or the tank emptied as soon as possible.

(ii) When a defect is detected during an inspection of a tank that has been emptied and degassed, the owner or operator shall repair the defect before refilling the tank.

(c) Owners and operators that use a closed-vent system in accordance with the provisions of §63.693 of this subpart shall meet the following inspection and monitoring requirements:

(1) Each closed-vent system that is used to comply with §63.693(c)(1)(i) of this subpart shall be inspected and monitored in accordance with the following requirements:

(i) At initial startup, the owner or operator shall monitor the closed-vent system components and connections using the procedures specified in §63.694(k) of this subpart to demonstrate that the closed-vent system operates with no detectable organic emissions.

(ii) After initial startup, the owner or operator shall inspect and monitor the closed-vent system as follows:

(A) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) shall be visually inspected at least once per year to check for defects that could result in air emissions. The owner or operator shall monitor a component or connection using the procedures specified in §63.694(k) of this subpart to demonstrate that it operates with no detectable organic emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).

(B) Closed-vent system components or connections other than those specified in paragraph (c)(1)(ii)(A) of this section, shall be monitored at least once per year using the procedures specified in §63.694(k) of this subpart to demonstrate that components or connections operate with no detectable organic emissions.

(C) The continuous monitoring system required by §63.693(b)(4)(i) shall monitor and record either an instantaneous data value at least once every 15 minutes or an average value for intervals of 15 minutes or less.

(D) The owner or operator shall visually inspect the seal or closure mechanism required by §63.693(c)(2)(ii) at least once every month to verify that the bypass mechanism is maintained in the closed position.

(iii) In the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of paragraph (c)(3) of this section.

(iv) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in §63.696 of this subpart.

(2) Each closed-vent system that is used to comply with §63.693(c)(1)(ii) of this subpart shall be inspected and monitored in accordance with the following requirements:

(i) The closed-vent system shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping; loose connections; or broken or missing caps or other closure devices.

(ii) The owner or operator must perform an initial inspection following installation of the closed-vent system. Thereafter, the owner or operator must perform the inspections at least once every calendar year except as provided for in paragraph (f) of this section.

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (c)(3) of this section.

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in §63.696 of this subpart.

(3) The owner or operator shall repair all detected defects as follows:

(i) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection.

(ii) Repair of a defect may be delayed beyond 45 calendar days if either of the conditions specified in paragraph (c)(3)(ii)(A) or (c)(3)(ii)(B) occurs. In this case, the owner or operator must repair the defect the next time the process or unit that vents to the closed-vent system is shutdown. Repair of the defect must be completed before the process or unit resumes operation.

(A) Completion of the repair is technically infeasible without the shutdown of the process or unit that vents to the closed-vent system.

(B) The owner or operator determines that the air emissions resulting from the repair of the defect within the specified period would be greater than the fugitive emissions likely to result by delaying the repair until the next time the process or unit that vents to the closed-vent system is shutdown.

(iii) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in §63.696 of this subpart.

(d) Owners and operators that use a transfer system equipped with a cover in accordance with the provisions of §63.689(c)(1) of this subpart shall meet the following inspection requirements:

(1) The cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover sections or between the cover and its mounting; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. In the case when a transfer system is buried partially or entirely underground, inspection is required only for those portions of the cover that extend to or above the ground surface, and those connections that are on such portions of the cover (e.g., access hatches, etc.) and can be opened to the atmosphere.

(2) The owner or operator must perform an initial inspection following installation of the cover. Thereafter, the owner or operator must perform the inspections at least once every calendar year except as provided for in paragraph (f) of this section.

(3) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (d)(5) of this section.

(4) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in §63.696 of this subpart.

(5) The owner or operator shall repair all detected defects as follows:

(i) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in paragraph (d)(5)(ii) of this section.

(ii) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the transfer system and no alternative transfer system is available at the site to accept the material normally handled by the system. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the material handled by the transfer system stops operation. Repair of the defect must be completed before the process or unit resumes operation.

(iii) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in §63.696 of this subpart.

(e) *Control device monitoring requirements.* For each control device required under §63.693 of this subpart to be monitored in accordance with the provisions of this paragraph (e), the owner or operator must ensure that each control device operates properly by monitoring the control device in accordance with the requirements specified in paragraphs (e)(1) through (e)(7) of this section.

(1) A continuous parameter monitoring system must be used to measure the operating parameter or parameters specified for the control device in §63.693(d) through §63.693(g) of this subpart as applicable to the type and design of the control device. The continuous parameter monitoring system must meet the following specifications and requirements:

(i) The continuous parameter monitoring system must measure either an instantaneous value at least once every 15 minutes or an average value for intervals of 15 minutes or less and continuously record either:

(A) Each measured data value; or

(B) Each block average value for each 1-hour period or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values.

(ii) The monitoring system must be installed, calibrated, operated, and maintained in accordance with the manufacturer's specifications or other written procedures that provide reasonable assurance that the monitoring equipment is operating properly.

(2) Using the data recorded by the monitoring system, the owner or operator must calculate the daily average value for each monitored operating parameter for each operating day. If operation of the control device is continuous, the operating day is a 24-hour period. If control device operation is not continuous, the operating day is the total number of hours of control device operation per 24-hour period. Valid data points must be available for 75 percent of the operating hours in an operating day to compute the daily average.

(3) For each monitored operating parameter, the owner or operator must establish a minimum operating parameter value or a maximum operating parameter value, as appropriate, to define the range of conditions at which the control device must be operated to continuously achieve the applicable performance requirements specified in §63.693(b)(2) of this subpart. Each minimum or maximum operating parameter value must be established in accordance with the requirements in paragraphs (e)(3)(i) and (e)(3)(ii) of this section.

(i) If the owner or operator conducts a performance test to demonstrate control device performance, then the minimum or maximum operating parameter value must be established based on values measured during the performance test and supplemented, as necessary, by the control device design specifications, manufacturer recommendations, or other applicable information.

(ii) If the owner or operator uses a control device design analysis to demonstrate control device performance, then the minimum or maximum operating parameter value must be established based on

the control device design analysis and supplemented, as necessary, by the control device manufacturer recommendations or other applicable information.

(4) An excursion for a given control device is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified in paragraphs (e)(4)(i) through (e)(4)(iii) of this section being met. When multiple operating parameters are monitored for the same control device and during the same operating day more than one of these operating parameters meets an excursion criterion specified in paragraphs (e)(4)(i) through (e)(4)(iii) of this section, then a single excursion is determined to have occurred for the control device for that operating day.

(i) An excursion occurs when the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit) established for the operating parameter in accordance with the requirements of paragraph (e)(3) of this section.

(ii) An excursion occurs when the period of control device operation is 4 hours or greater in an operating day and the monitoring data are insufficient to constitute a valid hour of data for at least 75 percent of the operating hours. Monitoring data are insufficient to constitute a valid hour of data if measured values are unavailable for any of the 15-minute periods within the hour.

(iii) An excursion occurs when the period of control device operation is less than 4 hours in an operating day and more than 1 of the hours during the period does not constitute a valid hour of data due to insufficient monitoring data. Monitoring data are insufficient to constitute a valid hour of data if measured values are unavailable for any of the 15-minute periods within the hour.

(5) For each excursion, except as provided for in paragraph(e)(6) of this section, the owner or operator shall be deemed to have failed to have applied control in a manner that achieves the required operating parameter limits. Failure to achieve the required operating parameter limits is a violation of this standard.

(6) An excursion is not a violation of this standard under any one of the conditions specified in paragraphs (e)(6)(i) and (e)(6)(ii) of this section.

(i) An excursion is not a violation nor does it count toward the number of excused excursions allowed under paragraph (e)(6)(ii) of this section when the excursion occurs during any one of the following periods:

(A) During a period of startup, shutdown, or malfunction when the affected facility is operated during such period in accordance with the facility's startup, shutdown, and malfunction plan; or

(B) During periods of non-operation of the unit or the process that is vented to the control device (resulting in cessation of HAP emissions to which the monitoring applies).

(ii) For each control device, one excused excursion is allowed per semiannual period for any reason. The initial semiannual period is the 6-month reporting period addressed by the first semiannual report submitted by the owner or operator in accordance with §63.697(b)(4) of this subpart.

(7) Nothing in paragraphs (e)(1) through (e)(6) of this section shall be construed to allow or excuse a monitoring parameter excursion caused by any activity that violates other applicable provisions of this subpart.

(f) *Alternative inspection and monitoring interval.* Following the initial inspection and monitoring of a piece of air pollution control equipment in accordance with the applicable provisions of this section, subsequent inspection and monitoring of the equipment may be performed at intervals longer than 1 year when an owner or operator determines that performing the required inspection or monitoring procedures would expose a worker to dangerous, hazardous, or otherwise unsafe conditions and the owner or operator complies with the requirements specified in paragraphs (f)(1) and (f)(2) of this section.

(1) The owner or operator must prepare and maintain at the plant site written documentation identifying the specific air pollution control equipment designated as "unsafe to inspect and monitor." The documentation must include for each piece of air pollution control equipment designated as such a written explanation of the reasons why the equipment is unsafe to inspect or monitor using the applicable procedures under this section.

(2) The owner or operator must develop and implement a written plan and schedule to inspect and monitor the air pollution control equipment using the applicable procedures specified in this section during times when a worker can safely access the air pollution control equipment. The required inspections and monitoring must be performed as frequently as practicable but do not need to be performed more frequently than the periodic schedule that would be otherwise applicable to the air pollution control equipment under the provisions of this section. A copy of the written plan and schedule must be maintained at the plant site.

§63.696 Record keeping requirements.

(a) The owner or operator subject to this subpart shall comply with the record keeping requirements in §63.10 under 40 CFR Part 63, Subpart A -- General Provisions that are applicable to this subpart as specified in Table 2 of this subpart.

(b) The owner or operator of a control device subject to this subpart shall maintain the records in accordance with the requirements of 40 CFR 63.10 of this part.

(c) [Reserved]

(d) Each owner or operator using an internal floating roof to comply with the tank control requirements specified in §63.685(e) of this subpart or using an external floating roof to comply with the tank control requirements specified in §63.685(f) of this subpart shall prepare and maintain the following records:

(1) Documentation describing the floating roof design and the dimensions of the tank.

(2) A record for each inspection required by §63.695(b) of this subpart, as applicable to the tank, that includes the following information: a tank identification number (or other unique identification description as selected by the owner or operator) and the date of inspection.

(3) The owner or operator shall record for each defect detected during inspections required by §63.695(b) of this subpart the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of §63.695(b)(4) of this section, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(4) Owners and operators that use a tank equipped with an external floating roof in accordance with the provisions of §63.685(f) of this subpart shall prepare and maintain records for each seal gap inspection required by §63.695(b) describing the results of the seal gap measurements. The records shall include the date of that the measurements are performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in §63.695(b) of this subpart, the records shall include a description of the repairs that were made, the date the repairs were made, and the date the separator was emptied, if necessary.

(e) Each owner or operator using a fixed roof to comply with the tank control requirements specified in §63.685(g) of this subpart shall prepare and maintain the following records:

(1) A record for each inspection required by §63.695(b) of this subpart, as applicable to the tank, that includes the following information: a tank identification number (or other unique identification description as selected by the owner or operator) and the date of inspection.

(2) The owner or operator shall record for each defect detected during inspections required by §63.695(b) of this subpart the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of §63.695(b)(4) of this section, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(f) Each owner or operator using an enclosure to comply with the tank control requirements specified in §63.685(i) of this subpart shall prepare and maintain records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T -- Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, Appendix B.

(g) An owner or operator shall record, on a semiannual basis, the information specified in paragraphs (g)(1) and (g)(2) of this section for those planned routine maintenance operations that would require the control device not to meet the requirements of §63.693(d) through (h) of this subpart, as applicable.

(1) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6 months. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(2) A description of the planned routine maintenance that was performed for the control device during the previous 6 months. This description shall include the type of maintenance performed and the total number of hours during these 6 months that the control device did not meet the requirement of §63.693 (d) through (h) of this subpart, as applicable, due to planned routine maintenance.

(h) An owner or operator shall record the information specified in paragraphs (h)(1) through (h)(3) of this section for those unexpected control device system malfunctions that would require the control device not to meet the requirements of §63.693 (d) through (h) of this subpart, as applicable.

(1) The occurrence and duration of each malfunction of the control device system.

(2) The duration of each period during a malfunction when gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the control device while the control device is not properly functioning.

(3) Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation.

§63.697 Reporting requirements.

(a) Each owner or operator of an affected source subject to this subpart must comply with the notification requirements specified in paragraph (a)(1) of this section and the reporting requirements specified in paragraph (a)(2) of this section.

(1) The owner or operator of an affected source must submit notices to the Administrator in accordance with the applicable notification requirements in 40 CFR 63.9 as specified in Table 2 of this subpart. For the purpose of this subpart, an owner or operator subject to the initial notification requirements under 40 CFR 63.9(b)(2) must submit the required notification on or before October 19, 1999.

(2) The owner or operator of an affected source must submit reports to the Administrator in accordance with the applicable reporting requirements in 40 CFR 63.10 as specified in Table 2 of this subpart.

(b) The owner or operator of a control device used to meet the requirements of §63.693 of this subpart shall submit the following notifications and reports to the Administrator:

(1) A Notification of Performance Tests specified in §63.7 and §63.9(g) of this part,

(2) Performance test reports specified in §63.10(d)(2) of this part, and

(3) Startup, shutdown, and malfunction reports specified in §63.10(d)(5) of this part.

(i) If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not completely consistent with the procedures specified in the source's startup, shutdown, and malfunction plan specified in §63.6(e)(3) of this part, the owner or operator shall state such information in the report. The startup, shutdown, or malfunction report shall consist of a letter, containing the name, title, and signature of the responsible official who is certifying its accuracy, that shall be submitted to the Administrator, and

(ii) Separate startup, shutdown, or malfunction reports are not required if the information is included in the summary report specified in paragraph (b)(4) of this section.

(4) A summary report specified in §63.10(e)(3) of this part shall be submitted on a semiannual basis (i.e., once every 6-month period). The summary report must include a description of all excursions as defined in §63.695(e) of this subpart that have occurred during the 6-month reporting period. For each excursion caused when the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit), the report must include the daily average values of the monitored parameter, the applicable operating parameter limit, and the date and duration of the period that the exceedance occurred. For each excursion caused by lack of monitoring data, the report must include the date and duration of period when the monitoring data were not collected and the reason why the data were not collected.

(c) Each owner or operator using an internal floating roof or external floating roof to comply with the Tank Level 2 control requirements specified in §63.685(d) of this subpart shall notify the Administrator in advance of each inspection required under §63.695(b) of this subpart to provide the Administrator with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Administrator of the date and location of the inspection as follows:

(1) Prior to each inspection to measure external floating roof seal gaps as required under §63.695(b) of this subpart, written notification shall be prepared and sent by the owner or operator so that it is received by the Administrator at least 30 calendar days before the date the measurements are scheduled to be performed.

(2) Prior to each visual inspection of an internal floating roof or external floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the owner or operator so that it is received by the Administrator at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in paragraph (c)(3) of this section.

(3) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Administrator as soon as possible, but no later than 7 calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Administrator at least 7 calendar days before refilling the tank.

§63.698 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the requirements in §63.680, 63.683 through 63.691, and 63.693. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart.

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(4) Approval of major alternatives to record keeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

Table 1 to Subpart DD of Part 63 -- List of Hazardous Air Pollutants (HAP) for Subpart DD

CAS No.[SU]a[/SU]	Chemical name	f [INF] m [/INF]	305
75-07-0	Acetaldehyde	1.000	
75-05-8	Acetonitrile	0.989	
98-86-2	Acetophenone	0.314	
107-02-8	Acrolein	1.000	
107-13-1	Acrylonitrile	0.999	
107-05-1	Allyl chloride		1.000
71-43-2	Benzene (includes benzene in gasoline)	1.000	
98-07-7	Benzotrichloride (isomers and mixture)	0.958	
100-44-7	Benzyl chloride		1.000
92-52-4	Biphenyl		0.864
542-88-1	Bis(chloromethyl)ether [SU]b[/SU]	0.999	
75-25-2	Bromoform		0.998
106-99-0	1,3-Butadiene		1.000
75-15-0	Carbon disulfide		1.000
56-23-5	Carbon tetrachloride		1.000
43-58-1	Carbonyl sulfide		1.000

133-90-4.....Chloramben..... 0.633
108-90-7.....Chlorobenzene..... 1.000
67-66-3.....Chloroform..... 1.000
107-30-2.....Chloromethyl methyl ether [SU]b[/SU] 1.000
126-99-8.....Chloroprene..... 1.000
98-82-8.....Cumene..... 1.000
94-75-7.....2,4-D, salts and esters.. 0.167
334-88-3.....Diazomethane [SU]c[/SU].. 0.999
132-64-9.....Dibenzofurans..... 0.967
96-12-8.....1,2-Dibromo-3-chloropropane 1.000
106-46-7.....1,4-Dichlorobenzene(p)... 1.000
107-06-2.....Dichloroethane (Ethylene dichloride) 1.000
111-44-4.....Dichloroethyl ether (Bis(2-chloroethyl ether) 0.757
542-75-6.....1,3-Dichloropropene..... 1.000
79-44-7.....Dimethyl carbamoyl chloride[SU]c[/SU] 0.150

64-67-5.....Diethyl sulfate..... 0.0025
77-78-1.....Dimethyl sulfate..... 0.086
121-69-7.....N,N-Dimethylaniline..... 0.0008
51-28-5.....2,4-Dinitrophenol..... 0.0077
121-14-2.....2,4-Dinitrotoluene..... 0.0848
123-91-1.....1,4-Dioxane (1,4-Diethyleneoxide) 0.869
106-89-8.....Epichlorohydrin (1-Chloro-2,3-epoxypropane) 0.939
106-88-7.....1,2-Epoxybutane..... 1.000
140-88-5.....Ethyl acrylate..... 1.000
100-41-4.....Ethyl benzene..... 1.000
75-00-3.....Ethyl chloride (Chloroethane) 1.000
106-93-4.....Ethylene dibromide (Dibromoethane)0.999
107-06-2.....Ethylene dichloride (1,2-Dichloroethane)1.000
151-56-4.....Ethylene imine (Aziridine) 0.867
75-21-8.....Ethylene oxide..... 1.000
75-34-3.....Ethylidene dichloride (1,1-Dichloroethane)1.000
Glycol ethers [SU]d[/SU] that have a Henry's Law [SU](e)[/SU]constant value equal to or greater than 0.1 Y/X (1.8x10[SU]-6[/SU] atm/gm-mole/m\3\) at 25E°C.
118-74-1.....Hexachlorobenzene..... 0.97
87-68-3.....Hexachlorobutadiene..... 0.88
67-72-1.....Hexachloroethane..... 0.499
110-54-3.....Hexane..... 1.000
78-59-1.....Isophorone..... 0.506
58-89-9.....Lindane (all isomers).... 1.000
67-56-1.....Methanol..... 0.855

74-83-9.....Methyl bromide (Bromomethane) 1.000
74-87-3.....Methyl chloride (Choromethane) 1.000
71-55-6.....Methyl chloroform (1,1,1-Trichloroethane)1.000
78-93-3.....Methyl ethyl ketone (2-Butanone 0.990
74-88-4.....Methyl iodide (Iodomethane) 1.0001
108-10-1.....Methyl isobutyl ketone (Hexone) 0.9796
624-83-9.....Methyl isocyanate..... 1.000
80-62-6.....Methyl methacrylate..... 0.916
1634-04-4.....Methyl tert butyl ether.. 1.000
75-09-2.....Methylene chloride (Dichloromethane)1.000
91-20-3.....Naphthalene..... 0.994
98-95-3.....Nitrobenzene..... 0.394
79-46-9.....2-Nitropropane..... 0.989
82-68-8.....Pentachloronitrobenzene (Quintobenzene)0.839
87-86-5.....Pentachlorophenol..... 0.0898
75-44-5.....Phosgene[SU]c[/SU]..... 1.000
123-38-6.....Propionaldehyde..... 0.999
78-87-5.....Propylene dichloride (1,2-Dichloropropane)1.000
75-56-9.....Propylene oxide..... 1.000
75-55-8.....1,2-Propylenimine (2-Methyl aziridine)0.945
100-42-5.....Styrene..... 1.000
96-09-3.....Styrene oxide..... 0.830
79-34-5.....1,1,2,2-Tetrachloroethane 0.999
127-18-4.....Tetrachloroethylene (Perchloroethylene)1.000
108-88-3.....Toluene..... 1.000
95-53-4.....o-Toluidine..... 0.152
120-82-1.....1,2,4-Trichlorobenzene.. 1.000
71-55-6.....1,1,1-Trichloroethane (Methyl chlorform)1.000
79-00-5.....1,1,2-Trichloroethane (Vinyl trichloride)1.000
79-01-6.....Trichloroethylene..... 1.000
95-95-4.....2,4,5-Trichlorophenol... 0.108
88-06-2.....2,4,6-Trichlorophenol... 0.132
121-44-8.....Triethylamine..... 1.000
540-84-1.....2,2,4-Trimethylpentane.. 1.000
108-05-4.....Vinyl acetate..... 1.000
593-60-2.....Vinyl bromide..... 1.000
75-01-4.....Vinyl chloride..... 1.000
75-35-4.....Vinylidene chloride (1,1-Dichloroethylene)1.000
1330-20-7.....Xylenes (isomers and mixture) 1.000
95-47-6.....o-Xylenes..... 1.000
108-38-3.....m-Xylenes..... 1.000
106-42-3.....p-Xylenes..... 1.000

Notes:

f[INF]m 305[/INF] = Method 305 fraction measure factor.

a. CAS numbers refer to the Chemical Abstracts Services registry number assigned to specific compounds, isomers, or mixtures of compounds.

b. Denotes a HAP that hydrolyzes quickly in water, but the hydrolysis products are also HAP chemicals.

c. Denotes a HAP that may react violently with water, exercise caustic is an expected analyte.

d. Denotes a HAP that hydrolyzes slowly in water.

e. The f[INF]m305[/INF] factors for some of the more common glycol ethers can be obtained by contacting the Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711.

Table 2 to Subpart DD of Part 63 -- Applicability of Paragraphs in Subpart A of This Part 63 -- General Provisions to Subpart DD

Subpart A reference	Applies to Subpart DD	Explanation
63.1(a)(1)	Yes	
63.1(a)(2)	Yes	
63.1(a)(3)	Yes	
63.1(a)(4)	No	Subpart DD (this table) specifies applicability of each paragraph in subpart A to subpart DD.
63.1(a)(5)-63.1(a)(9)	No	
63.1(a)(10)	Yes	
63.1(a)(11)	Yes	
63.1(a)(12)	Yes	
63.1(a)(13)	Yes	
63.1(a)(14)	Yes	

63.1(b)(1).....	No	Subpart DD specifies its own applicability.
63.1(b)(2).....	Yes	.....
63.1(b)(3).....	No	.....
63.1(c)(1).....	No	Subpart DD explicitly specifies requirements that apply.
63.1(c)(2).....	No	Area sources are not subject to subpart DD.
63.1(c)(3).....	No	.....
63.1(c)(4).....	Yes	.....
63.1(c)(5).....	Yes	Except that sources are not required to submit notifications overridden by this table.
63.1(d).....	No	.....
63.1(e).....	No	.....
63.2.....	Yes	§ 63.681 of subpart DD specifies that if the same term is defined in subparts A and DD, it shall have the meaning given in subpart DD.
63.3.....	Yes	.....
63.4(a)(1)-63.4(a)(3).....	Yes	
63.4(a)(4).....	No.....	Reserved.
63.4(a)(5).....	Yes	
63.4(b).....	Yes	
63.4(c).....	Yes	
63.5(a)(1).....	Yes	Except replace term ``source'' and ``stationary source'' in § 63.5(a)(1) of subpart A with ``affected source.''

63.5(a)(2).....	Yes	
63.5(b)(1).....	Yes	
63.5(b)(2).....	No	Reserved.
63.5(b)(3).....	Yes	
63.5(b)(4).....	Yes	Except the cross-reference to § 63.9(b) is changed to § 63.9(b)(4) and (5). Subpart DD overrides § 63.9(b)(2) and (b)(3).
63.5(b)(5).....	Yes	
63.5(b)(6).....	Yes	
63.5(c).....	No	Reserved.
63.5(d)(1)(i).....	Yes	
63.5(d)(1)(ii).....	Yes	
63.5(d)(1)(iii).....	Yes	
63.5(d)(2).....	No	
63.5(d)(3).....	Yes	
63.5(d)(4).....	Yes	
63.5(e).....	Yes	
63.5(f)(1).....	Yes	
63.5(f)(2).....	Yes	
63.6(a).....	Yes	
63.6(b)(1).....	No	Subpart DD specifies compliance dates for sources subject to subpart DD.
63.6(b)(2).....	No	
63.6(b)(3).....	Yes	
63.6(b)(4).....	No	May apply when standards are proposed under section 112(f) of the Clean Air Act.
63.6(b)(5).....	No.....	§ 63.697 of subpart DD includes notification requirements.
63.6(b)(6).....	No	
63.6(b)(7).....	No	

63.6(c)(1).....	No	§ 63.680 of subpart DD specifies the compliance date.
63.6(c)(2)-63.6(c)(4).....	No	
63.6(c)(5).....	Yes	
63.6(d).....	No	
63.6(e).....	Yes	
63.6(f)(1).....	Yes	
63.6(f)(2)(i).....	Yes	
63.6(f)(2)(ii).....	Yes	Subpart DD specifies the use of monitoring data in determining compliance with subpart DD.
63.6(f)(2)(iii) (A), (B), and (C).	Yes	
63.6(f)(2)(iii) (D).....	No	
63.6(f)(2)(iv).....	Yes	
63.6(f)(2)(v).....	Yes	
63.6(f)(3).....	Yes	
63.6(g).....	Yes	
63.6(h).....	No	Subpart DD does not require opacity and visible emission standards.
63.6(i).....	Yes	Except for § 63.6(i)(15), which is reserved.
63.6(j).....	Yes	
63.7(a)(1).....	No	Subpart DD specifies required testing and compliance demonstration procedures.
63.7(a)(2).....	Yes	
63.7(a)(3).....	Yes	
63.7(b).....	No	
63.7(c).....	No	
63.7(d).....	Yes	
63.7(e)(1).....	Yes	
63.7(e)(2).....	Yes	

63.7(e)(3).....	No	Subpart DD specifies test methods and procedures.
63.7(e)(4).....	Yes	
63.7(f).....	No	Subpart DD specifies applicable methods and provides alternatives.
63.7(g).....	Yes	
63.7(h)(1).....	Yes	
63.7(h)(2).....	Yes	
63.7(h)(3).....	Yes	
63.7(h)(4).....	No	
63.7(h)(5).....	Yes	
63.8(a).....	No	
63.8(b)(1).....	Yes	
63.8(b)(2).....	No	Subpart DD specifies locations to conduct monitoring.
63.8(b)(3).....	Yes	
63.8(c)(1)(i).....	Yes	
63.8(c)(1)(ii).....	Yes	
63.8(c)(1)(iii).....	Yes	
63.8(c)(2).....	Yes	
63.8(c)(3).....	Yes	
63.8(c)(4).....	No	Subpart DD specifies monitoring frequency
63.8(c)(5)-63.8(c)(8).....	No	
63.8(d).....	No	
63.8(e).....	No	
63.8(f)(1).....	Yes	
63.8(f)(2).....	Yes	
63.8(f)(3).....	Yes	
63.8(f)(4)(i).....	Yes	
63.8(f)(4)(ii).....	Yes	
63.8(f)(4)(iii).....	No	
63.8(f)(5)(i).....	Yes	
63.8(f)(5)(ii).....	No	
63.8(f)(5)(iii).....	Yes	
63.8(f)(6).....	Yes	
63.8(g).....	Yes	
63.9(a).....	Yes	

63.9(b)(1)(i)..... Yes
63.9(b)(1)(ii)..... No
63.9(b)(2)..... Yes
63.9(b)(3)..... No
63.9(b)(4)..... Yes
63.9(b)(5)..... Yes
63.9(c)..... Yes
63.9(d)..... Yes
63.9(e)..... No
63.9(f)..... No
63.9(g)..... No
63.9(h)..... Yes
63.9(i)..... Yes
63.9(j)..... No
63.10(a)..... Yes
63.10(b)(1)..... Yes
63.10(b)(2)(i)..... Yes
63.10(b)(2)(ii)..... Yes
63.10(b)(2)(iii)..... No
63.10(b)(2)(iv)..... Yes
63.10(b)(2)(v)..... Yes
63.10(b)(2)(vi)-(ix)..... Yes
63.10(b)(2)(x)-(xi)..... Yes
63.10(b)(2) (xii)-(xiv)..... No
63.10(b)(3)..... Yes
63.10(c)..... No
63.10(d)(1)..... No
63.10(d)(2)..... Yes
63.10(d)(3)..... No
63.10(d)(4)..... Yes
63.10(d)(5)(i)..... Yes
63.10(d)(5)(ii)..... Yes
63.10(e)..... No
63.10(f)..... Yes
63.11-63.15..... Yes

[SU]a[/SU] Wherever subpart A specifies ``postmark'' dates, submittals may be sent by methods other than the U.S. Mail (e.g., by fax or courier). Submittals shall be sent by the specified dates, but a postmark is not required.

Table 3 to Subpart DD of Part 63 -- Tank Control Levels for Tanks at Existing Affected Sources as Required by 40 CFR 63.685(b)(1)

Tank design capacity (cubic meters)	Maximum HAP vapor pressure of off-site material managed in tank (kilopascals)	Tank control level
Design capacity less than 75 m[SU]3[/SU].	Maximum HAP vapor pressure less than 76.6 kPa.	Level 1.
Design capacity equal to or greater than 75 m[SU]3[/SU] and less than 151 m[SU]3[/SU].	Maximum HAP vapor pressure less than 27.6 kPa.	Level 1.
	Maximum HAP vapor pressure equal to or greater than 27.6 kPa.	Level 2.
Design capacity equal to or greater than 151 m[SU]3[/SU].	Maximum HAP vapor pressures less than 5.2 kPa.	Level 1.
	Maximum HAP vapor pressure equal to or greater than 5.2 kPa.	Level 2.

Table 4 to Subpart DD of Part 63 -- Tank Control Levels for Tanks at New Affected Sources as Required by 40 CFR 63.685(b)(2)

Tank design capacity (cubic meters)	Maximum HAP vapor pressure of off-site material managed in tank (kilopascals)	Tank control level
Design capacity less than 38 m[SU]3[/SU].	Maximum HAP vapor pressure less than 76.6 kPa.	Level 1.
Design capacity equal to or greater than 38 m[SU]3[/SU] and less than 151 m[SU]3[/SU].	Maximum HAP vapor pressure less than 13.1 kPa.	Level 1.
	Maximum HAP vapor	Level 2.

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                                   pressure equal to or
                                   greater than 13.1 kPa.
Design capacity equal to or       Maximum HAP vapor       Level 1.
 greater than 151 m[SU]3[/SU].     pressure less than
                                   0.7 kPa.
                                  Maximum HAP vapor       Level 2.
                                   pressure equal to or
                                   greater than 0.7 kPa.
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15. 40 CFR Part 63, Subpart UUU - National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units

[The following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart UUU: P002, P010, P011, P015, P030, P036, and P040.]

§ 63.1560 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (HAP) emitted from petroleum refineries. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards.

§ 63.1561 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a petroleum refinery that is located at a major source of HAP emissions.

(1) A petroleum refinery is an establishment engaged primarily in petroleum refining as defined in the Standard Industrial Classification (SIC) code 2911 and the North American Industry Classification (NAIC) code 32411, and used mainly for:

(i) Producing transportation fuels (such as gasoline, diesel fuels, and jet fuels), heating fuels (such as kerosene, fuel gas distillate, and fuel oils), or lubricants;

(ii) Separating petroleum; or

(iii) Separating, cracking, reacting, or reforming an intermediate petroleum stream, or recovering a by-product(s) from the intermediate petroleum stream (e.g., sulfur recovery).

(2) A major source of HAP is a plant site that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (10 tons) or more per year or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year.

(b) [Reserved]

§ 63.1562 What parts of my plant are covered by this subpart?

(a) This subpart applies to each new, reconstructed, or existing affected source at a petroleum refinery.

(b) The affected sources are:

(1) Each catalytic cracking unit that regenerates catalyst.

(2) Each catalytic reforming unit that regenerates catalyst.

(3) Each sulfur recovery unit and the tail gas treatment unit serving it.

(4) Each bypass line serving a new, existing, or reconstructed catalytic cracking unit, catalytic reforming unit, or sulfur recovery unit. This means each vent system that contains a bypass line (e.g., ductwork) that could divert an affected vent stream away from a control device used to comply with the requirements of this subpart.

(c) An affected source is a new affected source if you commence construction of the affected source after September 11, 1998, and you meet the applicability criteria in §63.1561 at the time you commenced construction.

(d) Any affected source is reconstructed if you meet the criteria in §63.2.

(e) An affected source is existing if it is not new or reconstructed.

(f) This subpart does not apply to:

(1) A thermal catalytic cracking unit.

(2) A sulfur recovery unit that does not recover elemental sulfur or where the modified reaction is carried out in a water solution which contains a metal ion capable of oxidizing the sulfide ion to sulfur (e.g., the LO–CAT II process).

(3) A redundant sulfur recovery unit not located at a petroleum refinery and used by the refinery only for emergency or maintenance backup.

(4) Equipment associated with bypass lines such as low leg drains, high point bleed, analyzer vents, open-ended valves or lines, or pressure relief valves needed for safety reasons.

(5) Gaseous streams routed to a fuel gas system.

§ 63.1563 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to the requirements in paragraphs (a)(1) and (2) of this section.

(1) If you startup your affected source before April 11, 2002, then you must comply with the emission limitations and work practice standards for new and reconstructed sources in this subpart no later than April 11, 2002.

(2) If you startup your affected source after April 11, 2002, you must comply with the emission limitations and work practice standards for new and reconstructed sources in this subpart upon startup of your affected source.

(b) If you have an existing affected source, you must comply with the emission limitations and work practice standards for existing affected sources in this subpart by no later than April 11, 2005 except as specified in paragraph (c) of this section.

(c) We will grant an extension of compliance for an existing catalytic cracking unit allowing additional time to meet the emission limitations and work practice standards for catalytic cracking units in §63.1564 and 63.1565 if you commit to hydrotreating the catalytic cracking unit feedstock and to meeting the emission limitations of this subpart on the same date that your facility meets the final Tier 2 gasoline sulfur control standard (40 CFR Part 80, Subpart J). To obtain an extension, you must submit a written notification to your permitting authority according to the requirements in §63.1574(e). Your notification must include the information in paragraphs (c)(1) and (2) of this section.

(1) Identification of the affected source with a brief description of the controls to be installed (if needed) to comply with the emission limitations for catalytic cracking units in this subpart.

(2) A compliance schedule, including the information in paragraphs (c)(2)(i) through (iv) of this section.

(i) The date by which onsite construction or the process change is to be initiated.

(ii) The date by which onsite construction or the process change is to be completed.

(iii) The date by which your facility will achieve final compliance with both the final Tier 2 gasoline sulfur control standard as specified in §80.195, and the emission limitations and work practice standards for catalytic cracking units in this subpart. In no case will your permitting authority grant an extension beyond the date you are required to meet the Tier 2 gasoline sulfur control standard or December 31, 2009, whichever comes first. If you don't comply with the emission limitations and work practice standards for existing catalytic cracking units by the specified date, you will be out-of-compliance with the requirements for catalytic cracking units beginning April 11, 2005.

(iv) A brief description of interim emission control measures that will be taken to ensure proper operation and maintenance of the process equipment during the period of the compliance extension.

(d) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the requirements in paragraphs (d)(1) and (2) of this section apply.

(1) Any portion of the existing facility that is a new affected source or a new reconstructed source must be in compliance with the requirements of this subpart upon startup.

(2) All other parts of the source must be in compliance with the requirements of this subpart by no later than 3 years after it becomes a major source or, if applicable, the extended compliance date granted according to the requirements in paragraph (c) of this section.

(e) You must meet the notification requirements in §63.1574 according to the schedule in §63.1574 and in 40 CFR part 63, subpart A. Some of the notifications must be submitted before the date you are required to comply with the emission limitations and work practice standards in this subpart.

Catalytic Cracking Units, Catalytic Reforming Units, Sulfur Recovery Units, and Bypass Lines

§ 63.1564 What are my requirements for metal HAP emissions from catalytic cracking units?

(a) What emission limitations and work practice standards must I meet? You must:

(1) Meet each emission limitation in Table 1 of this subpart that applies to you. If your catalytic cracking unit is subject to the NSPS for PM in §60.102 of this chapter, you must meet the emission limitations for NSPS units. If your catalytic cracking unit isn't subject to the NSPS for PM, you can choose from the four options in paragraphs (a)(1)(i) through (iv) of this section:

(i) You can elect to comply with the NSPS requirements (Option 1);

(ii) You can elect to comply with the PM emission limit (Option 2);

(iii) You can elect to comply with the Nickel (Ni) lb/hr emission limit (Option 3); or

(iv) You can elect to comply with the Ni lb/1,000 lbs of coke burn-off emission limit (Option 4).

(2) Comply with each operating limit in Table 2 of this subpart that applies to you.

(3) Prepare an operation, maintenance, and monitoring plan according to the requirements in §63.1574(f) and operate at all times according to the procedures in the plan.

(4) The emission limitations and operating limits for metal HAP emissions from catalytic cracking units required in paragraphs (a)(1) and (2) of this section do not apply during periods of planned maintenance preapproved by the applicable permitting authority according to the requirements in §63.1575(j).

(b) How do I demonstrate initial compliance with the emission limitations and work practice standard? You must:

(1) Install, operate, and maintain a continuous monitoring system(s) according to the requirements in §63.1572 and Table 3 of this subpart.

(2) Conduct a performance test for each catalytic cracking unit not subject to the NSPS for PM according to the requirements in §63.1571 and under the conditions specified in Table 4 of this subpart.

(3) Establish each site-specific operating limit in Table 2 of this subpart that applies to you according to the procedures in Table 4 of this subpart.

(4) Use the procedures in paragraphs (b)(4)(i) through (iv) of this section to determine initial compliance with the emission limitations.

(i) If you elect Option 1 in paragraph (a)(1)(i) of ths section, the NSPS requirements, compute the PM emission rate (lb/1,000 lbs of coke burn-off) for each run using Equations 1, 2, and 3 (if applicable) of this section as follows:

$$R_c = K_1 Q_r (\%CO_2 + \%CO) + K_2 Q_a - K_3 Q_r \left[(\%CO/2) + \%CO_2 + \%O_2 \right] + K_3 Q_{ay} \left(\%O_{xy} \right) \qquad (Eq.\ 1)$$

where:

Rc = Coke burn-off rate, kg/hr (lb/hr);

Qr = Volumetric flow rate of exhaust gas from catalyst regenerator before adding air or gas streams. Example: You may measure after an electrostatic precipitator, but you must measure before a carbon monoxide boiler, dscm/min (dscf/min);

Qa = Volumetric flow rate of air to catalytic cracking unit catalyst regenerator, as determined from instruments in the catalytic cracking unit control room, dscm/min (dscf/min);

%CO2 = Carbon dioxide concentration in regenerator exhaust, percent by volume (dry basis);

%CO = Carbon monoxide concentration in regenerator exhaust, percent by volume (dry basis);

%O2 = Oxygen concentration in regenerator exhaust, percent by volume (dry basis);

K1 = Material balance and conversion factor, 0.2982 (kg-min)/(hr-dscm-%) (0.0186 (lb-min)/(hr-dscf-%));

K2 = Material balance and conversion factor, 2.088 (kg-min)/(hr-dscm) (0.1303 (lb-min)/(hr-dscf));

K3 = Material balance and conversion factor, 0.0994 (kg-min)/(hr-dscm-%) (0.0062 (lb-min)/(hr-dscf-%));

Qoxy = Volumetric flow rate of oxygen-enriched air stream to regenerator, as determined from instruments in the catalytic cracking unit control room, dscm/min (dscf/min); and

%Oxy = Oxygen concentration in oxygen-enriched air stream, percent by volume (dry basis).

$$E = \frac{K \times C_s \times Q_{sd}}{R_c} \qquad (Eq.\ 2)$$

where:

E = Emission rate of PM, kg/1,000 kg (lb/1,000 lb) of coke burn-off;

Cs = Concentration of PM, g/dscm (lb/dscf);

Qsd = Volumetric flow rate of the catalytic cracking unit catalyst regenerator flue gas as measured by Method 2 in appendix A to part 60 of this chapter, dscm/hr (dscf/hr);

Rc = Coke burn-off rate, kg coke/hr (1,000 lb coke/hr); and

K = Conversion factor, 1.0 (kg^2/g)/(1,000 kg) (1,000 lb/(1,000 lb)).

$$E_s = 1.0 + A(H/R_c)K' \qquad (Eq.\ 3)$$

where:

Es = Emission rate of PM allowed, kg/1,000 kg (1b/1,000 lb) of coke burn-off in catalyst regenerator; 1.0 = Emission limitation, kg coke/1,000 kg (lb coke/1,000 lb);

A = Allowable incremental rate of PM emissions, 0.18 g/million cal (0.10 lb/million Btu); and

H = Heat input rate from solid or liquid fossil fuel, million cal/hr (million Btu/hr). Make sure your permitting authority approves procedures for determining the heat input rate.

Rc = Coke burn-off rate, kg coke/hr (1,000 lb coke/hr) determined using Equation 1 of this section; and

K ' = Conversion factor to units to standard, 1.0 (kg^2/g)/(1,000 kg) (10^3 lb/(1,000 lb)).

(ii) If you elect Option 2 in paragraph (a)(1)(ii) of this section, the PM emission limit, compute your PM emission rate (lb/1,000 lbs of coke burn-off) using Equations 1 and 2 of this section and your site-specific opacity operating limit (if you use a continuous opacity monitoring system) using Equation 4 of this section as follows:

$$Opacity\ Limit = Opacity_{st} \times \left(\frac{\text{1lb/klb coke burn}}{\text{PMEmR}_{st}} \right) \qquad (Eq.\ 4)$$

where:

Opacity limit = Maximum permissible hourly average opacity, percent, or 10 percent, whichever is greater;

$Opacity_{st}$ = Hourly average opacity measured during the source test runs, percent; and $PMEmR_{st}$ = PM emission rate measured during the source test, lb/1,000 lbs coke burn.

(iii) If you elect Option 3 in paragraph (a)(1)(iii) of this section, the Ni lb/hr emission limit, compute your Ni emission rate using Equation 5 of this section and your site-specific Ni operating limit (if you use a continuous opacity monitoring system) using Equations 6 and 7 of this section as follows:

$$E_{Ni_1} = C_{Ni} \times Q_{sd} \qquad (Eq.\ 5)$$

where:

ENi1 = Mass emission rate of Ni, mg/hr (lb/hr); and

CNi = Ni concentration in the catalytic cracking unit catalyst regenerator flue gas as measured by Method 29 in appendix A to part 60 of this chapter, mg/dscm (lbs/dscf).

$$Opacity_1 = \frac{\text{13 g Ni/hr}}{\text{NiEmR1}_{st}} \times Opacity_{st} \qquad (Eq.\ 6)$$

where:

Opacityl = Opacity value for use in Equation 7 of this section, percent, or 10 percent, whichever is greater; and

NiEmR1st = Average Ni emission rate calculated as the arithmetic average Ni emission rate using Equation 5 of this section for each of the performance test runs, g Ni/hr.

$$Ni\ \textbf{Operating Limit}_1 = Opacity_1 \times Q_{mon,st} \times E\text{-}Cat_{st} \qquad (Eq.\ 7)$$

where:

Ni operating limit1 = Maximum permissible hourly average Ni operating limit, percent-acfm-ppmw, i.e., your site-specific Ni operating limit;

Qmon,st = Hourly average actual gas flow rate as measured by the continuous parameter monitoring system during the performance test or using the alternative procedure in §63.1573, acfm; and E–Catst = Ni concentration on equilibrium catalyst measured during source test, ppmw.

(iv) If you elect Option 4 in paragraph (a)(1)(iv) of this section, the Ni lbs/1,000 lbs of coke burn-off emission limit, compute your Ni emission rate using Equations 1 and 8 of this section and your site-specific Ni operating limit (if you use a continuous opacity monitoring system) using Equations 9 and 10 of this section as follows:

$$E_{Ni_2} = \frac{C_{Ni} \times Q_{sd}}{R_c} \qquad (Eq.\ 8)$$

where:

ENi2 = Normalized mass emission rate of Ni, mg/kg coke (lb/1,000 lbs coke).

$$Opacity_2 = \frac{1.0\ \text{mg/kg coke}}{\text{NiEmR2}_{st}} \times Opacity_{st} \qquad (Eq.\ 9)$$

where:

Opacity2 = Opacity value for use in Equation 10 of this section, percent, or 10 percent, whichever is greater; and

NiEmR2st = Average Ni emission rate calculated as the arithmetic average Ni emission rate using Equation 8 of this section for each of the performance test runs, mg/kg coke.

$$Ni\ \text{Operating Limit}_2 = Opacity_2 \times E\text{-}Cat_{st} \times \frac{Q_{mon,st}}{R_{c,st}} \qquad (Eq.\ 10)$$

where:

Ni operating limit2 = Maximum permissible hourly average Ni operating limit, percent-ppmw-acfm-hr/kg coke, i.e., your site-specific Ni operating limit; and

Rc,st = Coke burn rate from Equation 1 of this section, as measured during the initial performance test, kg coke/hr.

(5) Demonstrate initial compliance with each emission limitation that applies to you according to Table 5 of this subpart.

(6) Demonstrate initial compliance with the work practice standard in paragraph (a)(3) of this section by submitting your operation, maintenance, and monitoring plan to your permitting authority as part of your Notification of Compliance Status.

(7) Submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.1574.

(c) How do I demonstrate continuous compliance with the emission limitations and work practice standards? You must:

(1) Demonstrate continuous compliance with each emission limitation in Tables 1 and 2 of this subpart that applies to you according to the methods specified in Tables 6 and 7 of this subpart.

(2) Demonstrate continuous compliance with the work practice standard in paragraph (a)(3) of this section by maintaining records to document conformance with the procedures in your operation, maintenance, and monitoring plan.

(3) If you use a continuous opacity monitoring system and elect to comply with Option 3 in paragraph (a)(1)(iii) of this section, determine continuous compliance with your site-specific Ni operating limit by using Equation 11 of this section as follows:

$$Ni\ \text{Operating Value}_1 = Opacity \times Q_{mon} \times E\text{-}Cat \qquad (Eq.\ 11)$$

where:

Ni operating value1 = Maximum permissible hourly average Ni standard operating value, %-acfm-ppmw;

Opacity = Hourly average opacity, percent;

Qmon = Hourly average actual gas flow rate as measured by continuous parameter monitoring system or calculated by alternative procedure in §63.1573, acfm; and

E-Cat = Ni concentration on equilibrium catalyst from weekly or more recent measurement, ppmw.

(4) If you use a continuous opacity monitoring system and elect to comply with Option 4 in paragraph (a)(1)(iv) of this section, determine continuous compliance with your site-specific Ni operating limit by using Equation 12 of this section as follows:

$$Ni\ \text{Operating Value}_2 = \frac{Opacity \times E\text{-}Cat \times Q_{mon}}{R_c} \qquad (Eq.\ 12)$$

where:

Ni operating value2 = Maximum permissible hourly average Ni standard operating value, percent-acfm-ppmw-hr/kg coke.

§ 63.1565 What are my requirements for organic HAP emissions from catalytic cracking units?

(a) What emission limitations and work practice standards must I meet? You must:

(1) Meet each emission limitation in Table 8 of this subpart that applies to you. If your catalytic cracking unit is subject to the NSPS for carbon monoxide (CO) in §60.103 of this chapter, you must meet the emission limitations for NSPS units. If your catalytic cracking unit isn't subject to the NSPS for CO, you can choose from the two options in paragraphs (a)(1)(i) through (ii) of this section:

(i) You can elect to comply with the NSPS requirements (Option 1); or

(ii) You can elect to comply with the CO emission limit (Option 2).

(2) Comply with each site-specific operating limit in Table 9 of this subpart that applies to you.

(3) Prepare an operation, maintenance, and monitoring plan according to the requirements in §63.1574(f) and operate at all times according to the procedures in the plan.

(4) The emission limitations and operating limits for organic HAP emissions from catalytic cracking units required in paragraphs (a)(1) and (2) of this section do not apply during periods of planned maintenance preapproved by the applicable permitting authority according to the requirements in §63.1575(j).

(b) How do I demonstrate initial compliance with the emission limitations and work practice standards? You must:

(1) Install, operate, and maintain a continuous monitoring system according to the requirements in §63.1572 and Table 10 of this subpart. Except:

(i) Whether or not your catalytic cracking unit is subject to the NSPS for CO in §60.103 of this chapter, you don't have to install and operate a continuous emission monitoring system if you show that CO emissions from your vent average less than 50 parts per million (ppm), dry basis. You must get an exemption from your permitting authority, based on your written request. To show that the emissions average is less than 50 ppm (dry basis), you must continuously monitor CO emissions for 30 days using a CO continuous emission monitoring system that meets the requirements in §63.1572.

(ii) If your catalytic cracking unit isn't subject to the NSPS for CO, you don't have to install and operate a continuous emission monitoring system or a continuous parameter monitoring system if you vent emissions to a boiler (including a “CO boiler”) or process heater that has a design heat input capacity of at least 44 megawatts (MW).

(iii) If your catalytic cracking unit isn't subject to the NSPS for CO, you don't have to install and operate a continuous emission monitoring system or a continuous parameter monitoring system if you vent emissions to a boiler or process heater in which all vent streams are introduced into the flame zone.

(2) Conduct each performance test for a catalytic cracking unit not subject to the NSPS for CO according to the requirements in §63.1571 and under the conditions specified in Table 11 of this subpart.

(3) Establish each site-specific operating limit in Table 9 of this subpart that applies to you according to the procedures in Table 11 of this subpart.

(4) Demonstrate initial compliance with each emission limitation that applies to you according to Table 12 of this subpart.

(5) Demonstrate initial compliance with the work practice standard in paragraph (a)(3) of this section by submitting the operation, maintenance, and monitoring plan to your permitting authority as part of your Notification of Compliance Status according to §63.1574.

(6) Submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.1574.

(c) How do I demonstrate continuous compliance with the emission limitations and work practice standards? You must:

(1) Demonstrate continuous compliance with each emission limitation in Tables 8 and 9 of this subpart that applies to you according to the methods specified in Tables 13 and 14 of this subpart.

(2) Demonstrate continuous compliance with the work practice standard in paragraph (a)(3) of this section by complying with the procedures in your operation, maintenance, and monitoring plan.

§ 63.1566 What are my requirements for organic HAP emissions from catalytic reforming units?

(a) What emission limitations and work practice standards must I meet? You must:

(1) Meet each emission limitation in Table 15 of this subpart that applies to you. You can choose from the two options in paragraphs (a)(1)(i) through (ii) of this section:

(i) You can elect to vent emissions of total organic compounds (TOC) to a flare that meets the control device requirements in §63.11(b) (Option 1); or

(ii) You can elect to use a control device to meet a TOC percent reduction standard or concentration limit, whichever is less stringent (Option 2).

(2) Comply with each site-specific operating limit in Table 16 of this subpart that applies to you.

(3) The emission limitations in Tables 15 and 16 of this subpart apply to emissions from catalytic reforming unit process vents that occur during depressuring and purging operations. These process vents include those used during unit depressurization, purging, coke burn, catalyst rejuvenation, and reduction or activation purge.

(4) The emission limitations in Tables 15 and 16 of this subpart do not apply to emissions from process vents during depressuring and purging operations when the reactor vent pressure is 5 pounds per square inch gauge (psig) or less.

(5) Prepare an operation, maintenance, and monitoring plan according to the requirements in §63.1574(f) and operate at all times according to the procedures in the plan.

(b) How do I demonstrate initial compliance with the emission limitations and work practice standard? You must:

(1) Install, operate, and maintain a continuous monitoring system(s) according to the requirements in §63.1572 and Table 17 of this subpart.

(2) Conduct each performance test for a catalytic reforming unit according to the requirements in §63.1571 and under the conditions specified in Table 18 of this subpart.

(3) Establish each site-specific operating limit in Table 16 of this subpart that applies to you according to the procedures in Table 18 of this subpart.

(4) Use the procedures in paragraph (b)(4)(i) or (ii) of this section to determine initial compliance with the emission limitations.

(i) If you elect the percent reduction standard under Option 2, calculate the emission rate of TOC using Equation 1 of this section (if you use Method 25) or Equation 2 of this section (if you use Method 25A); then calculate the mass emission reduction using Equation 3 of this section as follows:

$$E = K_4 M_c Q_s \qquad (Eq.\ 1)$$

where:

E = Emission rate of TOC in the vent stream, kilograms-C per hour;

K4 = Constant, 6.0 × 10^-5 (kilograms per milligram)(minutes per hour);

Mc = Mass concentration of total gaseous nonmethane organic as measured and calculated using Method 25 in appendix A to part 60 of this chapter, mg/dscm; and

Qs = Vent stream flow rate, dscm/min, at a temperature of 20 degrees Celsius (C).

$$E = K_5\ C_{TOC}\ Q_s \qquad (Eq.\ 2)$$

where:

E = Emission rate of TOC in the vent stream, kilograms-C per hour;

K5 = Constant, 9.0×10^-5 (parts per million)^-1 (gram-mole per standard cubic meter) (gram-C per gram-mole-propane) (kilogram per gram) (minutes per hour), where the standard temperature (standard cubic meter) is at 20 degrees C (uses 36g–C/g.mole propane);

CTOC = Concentration of TOC on a dry basis in ppmv as propane as measured by Method 25A in appendix A to part 60 of this chapter; and

Qs = Vent stream flow rate, dry standard cubic meters per minute, at a temperature of 20 degrees C.

$$\% \text{ reduction} = \frac{E_i - E_o}{E_i} \times 100\% \qquad (Eq.\ 3)$$

where:

Ei = Mass emission rate of TOC at control device inlet, kg/hr; and

Eo = Mass emission rate of TOC at control device outlet, kg/hr.

(5) If you elect the 20 parts per million by volume (ppmv) concentration limit, correct the measured TOC concentration for oxygen (O2) content in the gas stream using Equation 4 of this section as follows:

$$C_{TOC,3\%O_2} = C_{TOC}\left(\frac{17.9\%}{20.9\% - \%O_2}\right) \qquad (Eq.\ 4)$$

(6) You are not required to do a TOC performance test if:

(i) You elect to vent emissions to a flare as provided in paragraph (a)(1)(i) of this section (Option 1); or

(ii) You elect the TOC percent reduction or concentration limit in paragraph (a)(1)(ii) of this section (Option 2), and you use a boiler or process heater with a design heat input capacity of 44 MW or greater or a boiler or process heater in which all vent streams are introduced into the flame zone.

(7) Demonstrate initial compliance with each emission limitation that applies to you according to Table 19 of this subpart.

(8) Demonstrate initial compliance with the work practice standard in paragraph (a)(5) of this section by submitting the operation, maintenance, and monitoring plan to your permitting authority as part of your Notification of Compliance Status.

(9) Submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.1574.

(c) How do I demonstrate continuous compliance with the emission limitations and work practice standards? You must:

(1) Demonstrate continuous compliance with each emission limitation in Tables 15 and 16 of this subpart that applies to you according to the methods specified in Tables 20 and 21 of this subpart.

(2) Demonstrate continuous compliance with the work practice standards in paragraph (a)(3) of this section by complying with the procedures in your operation, maintenance, and monitoring plan.

§ 63.1567 What are my requirements for inorganic HAP emissions from catalytic reforming units?

(a) What emission limitations and work practice standards must I meet? You must:

(1) Meet each emission limitation in Table 22 of this subpart that applies to you. These emission limitations apply during coke burn-off and catalyst rejuvenation. You can choose from the two options in paragraphs (a)(1)(i) through (ii) of this section:

(i) You can elect to use a control device to meet either a percent reduction standard for hydrogen chloride (HCl) emissions (Option 1); or

(ii) You can elect to meet an HCl concentration limit (Option 2).

(2) Meet each site-specific operating limit in Table 23 of this subpart that applies to you. These operating limits apply during coke burn-off and catalyst rejuvenation.

(3) Prepare an operation, maintenance, and monitoring plan according to the requirements in §63.1574(f) and operate at all times according to the procedures in the plan.

(b) How do I demonstrate initial compliance with the emission limitations and work practice standard? You must:

(1) Install, operate, and maintain a continuous monitoring system(s) according to the requirements in §63.1572 and Table 24 of this subpart.

(2) Conduct each performance test for a catalytic reforming unit according to the requirements in §63.1571 and the conditions specified in Table 25 of this subpart.

(3) Establish each site-specific operating limit in Table 23 of this subpart that applies to you according to the procedures in Table 25 of this subpart.

(4) Demonstrate initial compliance with each emission limitation that applies to you according to Table 26 of this subpart.

(5) Demonstrate initial compliance with the work practice standard in paragraph (a)(3) of this section by submitting the operation, maintenance, and monitoring plan to your permitting authority as part of your Notification of Compliance Status.

(6) Submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.1574.

(c) How do I demonstrate continuous compliance with the emission limitations and work practice standard? You must:

(1) Demonstrate continuous compliance with each emission limitation in Tables 22 and 23 of this subpart that applies to you according to the methods specified in Tables 27 and 28 of this subpart.

(2) Demonstrate continuous compliance with the work practice standard in paragraph (a)(3) of this section by maintaining records to document conformance with the procedures in your operation, maintenance and monitoring plan.

§ 63.1568 What are my requirements for HAP emissions from sulfur recovery units?

(a) What emission limitations and work practice standard must I meet? You must:

(1) Meet each emission limitation in Table 29 of this subpart that applies to you. If your sulfur recovery unit is subject to the NSPS for sulfur oxides in §60.104 of this chapter, you must meet the emission limitations for NSPS units. If your sulfur recovery unit isn't subject to the NSPS for sulfur oxides, you can choose from the options in paragraphs (a)(1)(i) through (ii) of this section:

(i) You can elect to meet the NSPS requirements (Option 1); or

(ii) You can elect to meet the total reduced sulfur (TRS) emission limitation (Option 2).

(2) Meet each operating limit in Table 30 of this subpart that applies to you.

(3) Prepare an operation, maintenance, and monitoring plan according to the requirements in §63.1574(f) and operate at all times according to the procedures in the plan.

(b) How do I demonstrate initial compliance with the emission limitations and work practice standards? You must:

(1) Install, operate, and maintain a continuous monitoring system according to the requirements in §63.1572 and Table 31 of this subpart.

(2) Conduct each performance test for a sulfur recovery unit not subject to the NSPS for sulfur oxides according to the requirements in §63.1571 and under the conditions specified in Table 32 of this subpart.

(3) Establish each site-specific operating limit in Table 30 of this subpart that applies to you according to the procedures in Table 32 of this subpart.

(4) Correct the reduced sulfur samples to zero percent excess air using Equation 1 of this section as follows:

$$C_{adj} = C_{meas} \left[20.9_c / (20.9 - \%O_2)\right] \qquad (Eq.\ 1)$$

where:

Cadj = pollutant concentration adjusted to zero percent oxygen, ppm or g/dscm;

Cmeas = pollutant concentration measured on a dry basis, ppm or g/dscm;

20.9_c = 20.9 percent oxygen-0.0 percent oxygen (defined oxygen correction basis), percent;

20.9 = oxygen concentration in air, percent;

%O2 = oxygen concentration measured on a dry basis, percent.

(5) Demonstrate initial compliance with each emission limitation that applies to you according to Table 33 of this subpart.

(6) Demonstrate initial compliance with the work practice standard in paragraph (a)(3) of this section by submitting the operation, maintenance, and monitoring plan to your permitting authority as part of your notification of compliance status.

(7) Submit the notification of compliance status containing the results of the initial compliance demonstration according to the requirements in §63.1574.

(c) How do I demonstrate continuous compliance with the emission limitations and work practice standards? You must:

(1) Demonstrate continuous compliance with each emission limitation in Tables 29 and 30 of this subpart that applies to you according to the methods specified in Tables 34 and 35 of this subpart.

(2) Demonstrate continuous compliance with the work practice standard in paragraph (a)(3) of this section by complying with the procedures in your operation, maintenance, and monitoring plan.

§ 63.1569 What are my requirements for HAP emissions from bypass lines?

(a) What work practice standards must I meet? (1) You must meet each work practice standard in Table 36 of this subpart that applies to you. You can choose from the four options in paragraphs (a)(1)(i) through (iv) of this section:

(i) You can elect to install an automated system (Option 1);

(ii) You can elect to use a manual lock system (Option 2);

(iii) You can elect to seal the line (Option 3); or

(iv) You can elect to vent to a control device (Option 4).

(2) As provided in §63.6(g), we, the EPA, may choose to grant you permission to use an alternative to the work practice standard in paragraph (a)(1) of this section.

(3) You must prepare an operation, maintenance, and monitoring plan according to the requirements in §63.1574(f) and operate at all times according to the procedures in the plan.

(b) How do I demonstrate initial compliance with the work practice standards? You must:

(1) If you elect the option in paragraph (a)(1)(i) of this section, conduct each performance test for a bypass line according to the requirements in §63.1571 and under the conditions specified in Table 37 of this subpart.

(2) Demonstrate initial compliance with each work practice standard in Table 36 of this subpart that applies to you according to Table 38 of this subpart.

(3) Demonstrate initial compliance with the work practice standard in paragraph (a)(3) of this section by submitting the operation, maintenance, and monitoring plan to your permitting authority as part of your notification of compliance status.

(4) Submit the notification of compliance status containing the results of the initial compliance demonstration according to the requirements in §63.1574.

(c) How do I demonstrate continuous compliance with the work practice standards? You must:

(1) Demonstrate continuous compliance with each work practice standard in Table 36 of this subpart that applies to you according to the requirements in Table 39 of this subpart.

(2) Demonstrate continuous compliance with the work practice standard in paragraph (a)(2) of this section by complying with the procedures in your operation, maintenance, and monitoring plan.

General Compliance Requirements

§ 63.1570 What are my general requirements for complying with this subpart?

(a) You must be in compliance with all of the non-opacity standards in this subpart during the times specified in §63.6(f)(1).

(b) You must be in compliance with the opacity and visible emission limits in this subpart during the times specified in §63.6(h)(1).

(c) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i). During the period between the compliance date specified for your affected source and the date upon which continuous monitoring systems have been installed and validated and any applicable operating limits have been set, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment.

(d) You must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).

(e) During periods of startup, shutdown, and malfunction, you must operate in accordance with your SSMP.

(f) You must report each instance in which you did not meet each emission limitation and each operating limit in this subpart that applies to you. This includes periods of startup, shutdown, and malfunction. You also must report each instance in which you did not meet the work practice standards in this subpart that apply to you. These instances are deviations from the emission limitations and work practice standards in this subpart. These deviations must be reported according to the requirements in §63.1575.

(g) Consistent with §63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the SSMP. The SSMP must require that good air pollution control practices are used during those periods. The plan must also include elements designed to minimize the frequency of such periods (i.e., root cause analysis). The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e) and the contents of the SSMP.

§ 63.1571 How and when do I conduct a performance test or other initial compliance demonstration?

(a) When must I conduct a performance test? You must conduct performance tests and report the results by no later than 150 days after the compliance date specified for your source in §63.1563 and according to the provisions in §63.7(a)(2). If you are required to do a performance evaluation or test for a semi-regenerative catalytic reforming unit catalyst regenerator vent, you may do them at the first regeneration cycle after your compliance date and report the results in a followup Notification of Compliance Status report due no later than 150 days after the test.

(1) For each emission limitation or work practice standard where initial compliance is not demonstrated using a performance test, opacity observation, or visible emission observation, you must conduct the initial compliance demonstration within 30 calendar days after the compliance date that is specified for your source in §63.1563.

(2) For each emission limitation where the averaging period is 30 days, the 30-day period for demonstrating initial compliance begins at 12:00 a.m. on the compliance date that is specified for your source in §63.1563 and ends at 11:59 p.m., 30 calendar days after the compliance date that is specified for your source in §63.1563.

(3) If you commenced construction or reconstruction between September 11, 1998 and April 11, 2002, you must demonstrate initial compliance with either the proposed emission limitation or the promulgated emission limitation no later than October 8, 2002 or within 180 calendar days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(4) If you commenced construction or reconstruction between September 11, 1998 and April 11, 2002, and you chose to comply with the proposed emission limitation when demonstrating initial compliance, you must conduct a second compliance demonstration for the promulgated emission limitation by October 10, 2005, or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(b) What are the general requirements for performance test and performance evaluations? You must:

(1) Conduct each performance test according to the requirements in §63.7(e)(1).

(2) Except for opacity and visible emission observations, conduct three separate test runs for each performance test as specified in §63.7(e)(3). Each test run must last at least 1 hour.

(3) Conduct each performance evaluation according to the requirements in §63.8(e).

(4) Not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §63.7(e)(1).

(5) Calculate the average emission rate for the performance test by calculating the emission rate for each individual test run in the units of the applicable emission limitation using Equation 2, 5, or 8 of §63.1564, and determining the arithmetic average of the calculated emission rates.

(c) What procedures must I use for an engineering assessment? You may choose to use an engineering assessment to calculate the process vent flow rate, net heating value, TOC emission rate, and total organic HAP emission rate expected to yield the highest daily emission rate when determining the

emission reduction or outlet concentration for the organic HAP standard for catalytic reforming units. If you use an engineering assessment, you must document all data, assumptions, and procedures to the satisfaction of the applicable permitting authority. An engineering assessment may include the approaches listed in paragraphs (c)(1) through (c)(4) of this section. Other engineering assessments may be used but are subject to review and approval by the applicable permitting authority.

(1) You may use previous test results provided the tests are representative of current operating practices at the process unit, and provided EPA methods or approved alternatives were used;

(2) You may use bench-scale or pilot-scale test data representative of the process under representative operating conditions;

(3) You may use maximum flow rate, TOC emission rate, organic HAP emission rate, or organic HAP or TOC concentration specified or implied within a permit limit applicable to the process vent; or

(4) You may use design analysis based on engineering principles, measurable process parameters, or physical or chemical laws or properties. Examples of analytical methods include, but are not limited to:

(i) Use of material balances based on process stoichiometry to estimate maximum TOC concentrations;

(ii) Calculation of hourly average maximum flow rate based on physical equipment design such as pump or blower capacities; and

(iii) Calculation of TOC concentrations based on saturation conditions.

(d) Can I adjust the process or control device measured values when establishing an operating limit? If you do a performance test to demonstrate compliance, you must base the process or control device operating limits for continuous parameter monitoring systems on the results measured during the performance test. You may adjust the values measured during the performance test according to the criteria in paragraphs (d)(1) through (3) of this section.

(1) If you must meet the HAP metal emission limitations in §63.1564, you elect the option in paragraph (a)(1)(iii) in §63.1564 (Ni lb/hr), and you use continuous parameter monitoring systems, you must establish an operating limit for the equilibrium catalyst Ni concentration based on the laboratory analysis of the equilibrium catalyst Ni concentration from the initial performance test. Section 63.1564(b)(2) allows you to adjust the laboratory measurements of the equilibrium catalyst Ni concentration to the maximum level. You must make this adjustment using Equation 1 of this section as follows:

$$Ecat\text{-Limit} = \frac{13 \text{ g Ni/hr}}{NiEmR1_{st}} \times Ecat_{st} \qquad (Eq.\ 1)$$

where:

Ecat-Limit = Operating limit for equilibrium catalyst Ni concentration, mg/kg;

NiEmR1st = Average Ni emission rate calculated as the arithmetic average Ni emission rate using Equation 5 of this section for each performance test run, g Ni/hr; and

Ecatst = Average equilibrium Ni concentration from laboratory test results, mg/kg.

(2) If you must meet the HAP metal emission limitations in §§63.1564, you elect the option in paragraph (a)(1)(iv) in §§63.1564 (Ni lb/1,000 lb of coke burn-off), and you use continuous parameter monitoring systems, you must establish an operating limit for the equilibrium catalyst Ni concentration based on the laboratory analysis of the equilibrium catalyst Ni concentration from the initial performance test. Section 63.1564(b)(2) allows you to adjust the laboratory measurements of the equilibrium catalyst Ni concentration to the maximum level. You must make this adjustment using Equation 2 of this section as follows:

$$Ecat\text{-Limit} = \frac{1.0 \text{ mg/kg coke burn-off}}{NiEmR2_{st}} \times Ecat_{st} \qquad (Eq.\ 2)$$

where:

NiEmR2st = Average Ni emission rate calculated as the arithmetic average Ni emission rate using Equation 8 of §63.1564 for each performance test run, mg/kg coke burn-off.

(3) If you choose to adjust the equilibrium catalyst Ni concentration to the maximum level, you can't adjust any other monitored operating parameter (i.e., gas flow rate, voltage, pressure drop, liquid-to-gas ratio).

(4) Except as specified in paragraph (d)(3) of this section, if you use continuous parameter monitoring systems, you may adjust one of your monitored operating parameters (flow rate, voltage and secondary current, pressure drop, liquid-to-gas ratio) from the average of measured values during the performance test to the maximum value (or minimum value, if applicable) representative of worst-case operating conditions, if necessary. This adjustment of measured values may be done using control device design specifications, manufacturer recommendations, or other applicable information. You must provide supporting documentation and rationale in your Notification of Compliance Status, demonstrating to the satisfaction of your permitting authority, that your affected source complies with the applicable emission limit at the operating limit based on adjusted values.

(e) Can I change my operating limit? You may change the established operating limit by meeting the requirements in paragraphs (e)(1) through (3) of this section.

(1) You may change your established operating limit for a continuous parameter monitoring system by doing an additional performance test, a performance test in conjunction with an engineering assessment, or an engineering assessment to verify that, at the new operating limit, you are in compliance with the applicable emission limitation.

(2) You must establish a revised operating limit for your continuous parameter monitoring system if you make any change in process or operating conditions that could affect control system performance or you change designated conditions after the last performance or compliance tests were done. You can establish the revised operating limit as described in paragraph (e)(1) of this section.

(3) You may change your site-specific opacity operating limit or Ni operating limit only by doing a new performance test.

§ 63.1572 What are my monitoring installation, operation, and maintenance requirements?

(a) You must install, operate, and maintain each continuous emission monitoring system according to the requirements in paragraphs (a)(1) through (4) of this section.

(1) You must install, operate, and maintain each continuous emission monitoring system according to the requirements in Table 40 of this subpart.

(2) If you use a continuous emission monitoring system to meet the NSPS CO or SO2 limit, you must conduct a performance evaluation of each continuous emission monitoring system according to the requirements in §63.8 and Table 40 of this subpart. This requirement does not apply to an affected source subject to the NSPS that has already demonstrated initial compliance with the applicable performance specification.

(3) As specified in §63.8(c)(4)(ii), each continuous emission monitoring system must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(4) Data must be reduced as specified in §63.8(g)(2).

(b) You must install, operate, and maintain each continuous opacity monitoring system according to the requirements in paragraphs (b)(1) through (3) of this section.

(1) Each continuous opacity monitoring system must be installed, operated, and maintained according to the requirements in Table 40 of this subpart.

(2) If you use a continuous opacity monitoring system to meet the NSPS opacity limit, you must conduct a performance evaluation of each continuous opacity monitoring system according to the requirements in §63.8 and Table 40 of this subpart. This requirement does not apply to an affected source subject to the NSPS that has already demonstrated initial compliance with the applicable performance specification.

(3) As specified in §63.8(c)(4)(i), each continuous opacity monitoring system must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(c) You must install, operate, and maintain each continuous parameter monitoring system according to the requirements in paragraphs (c)(1) through (7) of this section.

(1) Each continuous parameter monitoring system must be installed, operated, and maintained according to the requirements in Table 41 of this subpart and in a manner consistent with the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment will monitor accurately.

(2) The continuous parameter monitoring system must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation

to have a valid hour of data (or at least two if a calibration check is performed during that hour or if the continuous parameter monitoring system is out-of-control).

(3) Each continuous parameter monitoring system must have valid hourly average data from at least 75 percent of the hours during which the process operated.

(4) Each continuous parameter monitoring system must determine and record the hourly average of all recorded readings and if applicable, the daily average of all recorded readings for each operating day. The daily average must cover a 24-hour period if operation is continuous or the number of hours of operation per day if operation is not continuous.

(5) Each continuous parameter monitoring system must record the results of each inspection, calibration, and validation check.

(d) You must monitor and collect data according to the requirements in paragraphs (d)(1) and (2) of this section.

(1) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation (or collect data at all required intervals) at all times the affected source is operating.

(2) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities for purposes of this regulation, including data averages and calculations, for fulfilling a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

§ 63.1573 What are my monitoring alternatives?

(a) What is the approved alternative for monitoring gas flow rate? You can elect to use this alternative to a continuous parameter monitoring system for the catalytic regenerator exhaust gas flow rate for your catalytic cracking unit if the unit does not introduce any other gas streams into the catalyst regeneration vent (i.e., complete combustion units with no additional combustion devices). If you select this alternative, you must use the same procedure for the performance test and for monitoring after the performance test.

(1) Install and operate a continuous parameter monitoring system to measure and record the hourly average volumetric air flow rate to the catalytic cracking unit regenerator. Or, you can determine and record the hourly average volumetric air flow rate to the catalytic cracking unit regenerator using the catalytic cracking unit control room instrumentation.

(2) Install and operate a continuous parameter monitoring system to measure and record the temperature of the gases entering the control device (or exiting the catalyst regenerator if you do not use an add-on control device).

(3) Calculate and record the hourly average actual exhaust gas flow rate using Equation 1 of this section as follows:

$$Q_{gas} = (1.12\ \text{scfm/dscfm}) \times (Q_{air} + Q_{oxy}) \times \left(\frac{Temp_{gas}}{273°K}\right) \times \left(\frac{P_{vent}}{1\ \text{atm.}}\right) \qquad (Eq.\ 1)$$

where:

Qgas = Hourly average actual gas flow rate, acfm;

1.12 = Default correction factor to convert gas flow from dry standard cubic feet per minute (dscfm) to standard cubic feet per minute (scfm);

Qair = Volumetric flow rate of air to regenerator, as determined from the catalytic cracking unit control room instrumentations, dscfm;

Qoxy = Volumetric flow rate of oxygen-enriched air stream to regenerator, as determined from the catalytic cracking unit control room instrumentations, dscfm;

$Temp_{gas}$ = Temperature of gas stream in vent measured as near as practical to the control device or opacity monitor, °K. For wet scrubbers, temperature of gas prior to the wet scrubber; and

Pvent = Absolute pressure in the vent measured as near as practical to the control device or opacity monitor, atm. When used in conjunction with opacity in the final vent stack, you can assume Pvent = 1 atm.

(b) What is the approved alternative for monitoring pH levels? If you use a wet scrubber to control inorganic HAP emissions from your vent on a catalytic reforming unit, you can measure and record the pH of the water (or scrubbing liquid) exiting the scrubber at least once an hour during coke burn-off and catalyst rejuvenation using pH strips as an alternative to a continuous parameter monitoring system. The pH strips must meet the requirements in Table 41 of this subpart.

(c) Can I use another type of monitoring system? You may request approval from your permitting authority to use an automated data compression system. An automated data compression system does not record monitored operating parameter values at a set frequency (e.g., once every hour) but records all values that meet set criteria for variation from previously recorded values. Your request must contain a description of the monitoring system and data recording system, including the criteria used to determine which monitored values are recorded and retained, the method for calculating daily averages, and a demonstration that the system meets all of the criteria in paragraphs (c)(1) through (5) of this section:

(1) The system measures the operating parameter value at least once every hour;

(2) The system records at least 24 values each day during periods of operation;

(3) The system records the date and time when monitors are turned off or on;

(4) The system recognizes unchanging data that may indicate the monitor is not functioning properly, alerts the operator, and records the incident; and

(5) The system computes daily average values of the monitored operating parameter based on recorded data.

(d) Can I monitor other process or control device operating parameters? You may request approval to monitor parameters other than those required in this subpart. You must request approval if:

(1) You use a control device other than a thermal incinerator, boiler, process heater, flare, electrostatic precipitator, or wet scrubber;

(2) You use a combustion control device (e.g., incinerator, flare, boiler or process heater with a design heat capacity of at least 44 MW, boiler or process heater where the vent stream is introduced into the flame zone), electrostatic precipitator, or scrubber but want to monitor a parameter other than those specified; or

(3) You wish to use another type of continuous emission monitoring system that provides direct measurement of a pollutant (i.e., a PM or multi-metals HAP continuous emission monitoring system, a carbonyl sulfide/carbon disulfide continuous emission monitoring system, a TOC continuous emission monitoring system, or HCl continuous emission monitoring system).

(e) How do I request to monitor alternative parameters? You must submit a request for review and approval or disapproval to the Administrator. The request must include the information in paragraphs (e)(1) through (5) of this section.

(1) A description of each affected source and the parameter(s) to be monitored to determine whether the affected source will continuously comply with the emission limitations and an explanation of the criteria used to select the parameter(s).

(2) A description of the methods and procedures that will be used to demonstrate that the parameter can be used to determine whether the affected source will continuously comply with the emission limitations and the schedule for this demonstration. You must certify that you will establish an operating limit for the monitored parameter(s) that represents the conditions in existence when the control device is being properly operated and maintained to meet the emission limitation.

(3) The frequency and content of monitoring, recording, and reporting, if monitoring and recording are not continuous. You also must include the rationale for the proposed monitoring, recording, and reporting requirements.

(4) Supporting calculations.

(5) Averaging time for the alternative operating parameter.

Notifications, Reports, and Records

§ 63.1574 What notifications must I submit and when?

(a) Except as allowed in paragraphs (a)(1) through (3) of this section, you must submit all of the notifications in §63.6(h), 63.7(b) and (c), 63.8(e), 63.8(f)(4), 63.8(f)(6), and 63.9(b) through (h) that apply to you by the dates specified.

(1) You must submit the notification of your intention to construct or reconstruct according to §63.9(b)(5) unless construction or reconstruction had commenced and initial startup had not occurred before April 11, 2002. In this case, you must submit the notification as soon as practicable before startup but no later than July 10, 2002. This deadline also applies to the application for approval of construction or reconstruction and approval of construction or reconstruction based on State preconstruction review required in §63.5(d)(1)(i) and 63.5(f)(2).

(2) You must submit the notification of intent to conduct a performance test required in §63.7(b) at least 30 calendar days before the performance test is scheduled to begin (instead of 60 days).

(3) If you are required to conduct a performance test, performance evaluation, design evaluation, opacity observation, visible emission observation, or other initial compliance demonstration, you must submit a notification of compliance status according to §63.9(h)(2)(ii). You can submit this information in an operating permit application, in an amendment to an operating permit application, in a separate submission, or in any combination. In a State with an approved operating permit program where delegation of authority under section 112(l) of the CAA has not been requested or approved, you must provide a duplicate notification to the applicable Regional Administrator. If the required information has been submitted previously, you do not have to provide a separate notification of compliance status. Just refer to the earlier submissions instead of duplicating and resubmitting the previously submitted information.

(i) For each initial compliance demonstration that does not include a performance test, you must submit the Notification of Compliance Status no later than 30 calendar days following completion of the initial compliance demonstration.

(ii) For each initial compliance demonstration that includes a performance test, you must submit the notification of compliance status, including the performance test results, no later than 150 calendar days after the compliance date specified for your affected source in §63.1573.

(b) As specified in §63.9(b)(2), if you startup your new affected source before April 11, 2002, you must submit the initial notification no later than August 9, 2002.

(c) As specified in §63.9(b)(3), if you start your new or reconstructed affected source on or after April 11, 2002, you must submit the initial notification no later than 120 days after you become subject to this subpart.

(d) You also must include the information in Table 42 of this subpart in your notification of compliance status.

(e) If you request an extension of compliance for an existing catalytic cracking unit as allowed in §63.1563(c), you must submit a notification to your permitting authority containing the required information by October 13, 2003.

(f) As required by this subpart, you must prepare and implement an operation, maintenance, and monitoring plan for each affected source, control system, and continuous monitoring system. The purpose of this plan is to detail the operation, maintenance, and monitoring procedures you will follow.

(1) You must submit the plan to your permitting authority for review and approval along with your notification of compliance status. While you do not have to include the entire plan in your part 70 or 71 permit, you must include the duty to prepare and implement the plan as an applicable requirement in your part 70 or 71 operating permit. You must submit any changes to your permitting authority for review and approval and comply with the plan until the change is approved.

(2) Each plan must include, at a minimum, the information specified in paragraphs (f)(2)(i) through (x) of this section.

(i) Process and control device parameters to be monitored for each affected source, along with established operating limits.

(ii) Procedures for monitoring emissions and process and control device operating parameters for each affected source.

(iii) Procedures that you will use to determine the coke burn-rate, the volumetric flow rate (if you use process data rather than direct measurement), and the rate of combustion of liquid or solid fossil fuels if you use an incinerator-waste heat boiler to burn the exhaust gases from a catalyst regenerator.

(iv) Procedures and analytical methods you will use to determine the equilibrium catalyst Ni concentration, the equilibrium catalyst Ni concentration monthly rolling average, and the hourly or hourly average Ni operating value.

(v) Procedures you will use to determine the pH of the water (or scrubbing liquid) exiting a wet scrubber if you use pH strips.

(vi) Procedures you will use to determine the HCl concentration of gases from a semi-regenerative catalytic reforming unit with an internal scrubbing system (i.e., no add-on control device) when you use a colormetric tube sampling system, including procedures for correcting for pressure (if applicable to the sampling equipment).

(vii) Procedures you will use to determine the gas flow rate for a catalytic cracking unit if you use the alternative procedure based on air flow rate and temperature.

(viii) Monitoring schedule, including when you will monitor and when you will not monitor an affected source (e.g., during the coke burn-off, regeneration process).

(ix) Quality control plan for each continuous opacity monitoring system and continuous emission monitoring system you use to meet an emission limit in this subpart. This plan must include procedures you will use for calibrations, accuracy audits, and adjustments to the system needed to meet applicable requirements for the system.

(x) Maintenance schedule for each affected source, monitoring system, and control device that is generally consistent with the manufacturer's instructions for routine and long-term maintenance.

§ 63.1575 What reports must I submit and when?

(a) You must submit each report in Table 43 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule, you must submit each report by the date in Table 43 of this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.1563 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your affected source in §63.1563.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.1563.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to part 70 or 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to §70.6(a)(3)(iii)(A) or §71.6(a)(3)(iii)(A) of this chapter, you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information required in paragraphs (c)(1) through (4) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If there are no deviations from any emission limitation that applies to you and there are no deviations from the requirements for work practice standards, a statement that there were no deviations from the emission limitations or work practice standards during the reporting period and that no continuous emission monitoring system or continuous opacity monitoring system was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted.

(d) For each deviation from an emission limitation and for each deviation from the requirements for work practice standards that occurs at an affected source where you are not using a continuous opacity monitoring system or a continuous emission monitoring system to comply with the emission limitation or work practice standard in this subpart, the compliance report must contain the information in paragraphs (c)(1) through (3) of this section and the information in paragraphs (d)(1) through (3) of this section.

(1) The total operating time of each affected source during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(3) Information on the number, duration, and cause for monitor downtime incidents (including unknown cause, if applicable, other than downtime associated with zero and span and other daily calibration checks).

(e) For each deviation from an emission limitation occurring at an affected source where you are using a continuous opacity monitoring system or a continuous emission monitoring system to comply with the

emission limitation, you must include the information in paragraphs (d)(1) through (3) of this section and the information in paragraphs (e)(1) through (13) of this section.

(1) The date and time that each malfunction started and stopped.

(2) The date and time that each continuous opacity monitoring system or continuous emission monitoring system was inoperative, except for zero (low-level) and high-level checks.

(3) The date and time that each continuous opacity monitoring system or continuous emission monitoring system was out-of-control, including the information in §63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging period specified in the regulation for other types of emission limitations), and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period and into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging time specified in the regulation for other types of standards), and the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system as a percent of the total source operating time during that reporting period.

(8) A breakdown of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.

(9) An identification of each HAP that was monitored at the affected source.

(10) A brief description of the process units.

(11) The monitoring equipment manufacturer(s) and model number(s).

(12) The date of the latest certification or audit for the continuous opacity monitoring system or continuous emission monitoring system.

(13) A description of any change in the continuous emission monitoring system or continuous opacity monitoring system, processes, or controls since the last reporting period.

(f) You also must include the information required in paragraphs (f)(1) through (2) of this section in each compliance report, if applicable.

(1) A copy of any performance test done during the reporting period on any affected unit. The report may be included in the next semiannual report. The copy must include a complete report for each test method

used for a particular kind of emission point tested. For additional tests performed for a similar emission point using the same method, you must submit the results and any other information required, but a complete test report is not required. A complete test report contains a brief process description; a simplified flow diagram showing affected processes, control equipment, and sampling point locations; sampling site data; description of sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; documentation of calculations; and any other information required by the test method.

(2) Any requested change in the applicability of an emission standard (e.g., you want to change from the PM standard to the Ni standard for catalytic cracking units or from the HCl concentration standard to percent reduction for catalytic reforming units) in your periodic report. You must include all information and data necessary to demonstrate compliance with the new emission standard selected and any other associated requirements.

(g) You may submit reports required by other regulations in place of or as part of the compliance report if they contain the required information.

(h) The reporting requirements in paragraphs (h)(1) and (2) of this section apply to startups, shutdowns, and malfunctions:

(1) When actions taken to respond are consistent with the plan, you are not required to report these events in the semiannual compliance report and the reporting requirements in §63.6(e)(3)(iii) and 63.10(d)(5) do not apply.

(2) When actions taken to respond are not consistent with the plan, you must report these events and the response taken in the semiannual compliance report. In this case, the reporting requirements in §63.6(e)(3)(iv) and 63.10(d)(5) do not apply.

(i) If the applicable permitting authority has approved a period of planned maintenance for your catalytic cracking unit according to the requirements in paragraph (j) of this section, you must include the following information in your compliance report.

(1) In the compliance report due for the 6-month period before the routine planned maintenance is to begin, you must include a full copy of your written request to the applicable permitting authority and written approval received from the applicable permitting authority.

(2) In the compliance report due after the routine planned maintenance is complete, you must include a description of the planned routine maintenance that was performed for the control device during the previous 6-month period, and the total number of hours during those 6 months that the control device did not meet the emission limitations and monitoring requirements as a result of the approved routine planned maintenance.

(j) If you own or operate multiple catalytic cracking units that are served by a single wet scrubber emission control device (e.g., a Venturi scrubber), you may request the applicable permitting authority to approve a period of planned routine maintenance for the control device needed to meet requirements in your operation, maintenance, and monitoring plan. You must present data to the applicable permitting authority demonstrating that the period of planned maintenance results in overall emissions reductions.

During this pre-approved time period, the emission control device may be taken out of service while maintenance is performed on the control device and/or one of the process units while the remaining process unit(s) continue to operate. During the period the emission control device is unable to operate, the emission limits, operating limits, and monitoring requirements applicable to the unit that is operating and the wet scrubber emission control device do not apply. The applicable permitting authority may require that you take specified actions to minimize emissions during the period of planned maintenance.

(1) You must submit a written request to the applicable permitting authority at least 6 months before the planned maintenance is scheduled to begin with a copy to the EPA Regional Administrator.

(2) Your written request must contain the information in paragraphs (j)(2)(i) through (v) of this section.

(i) A description of the planned routine maintenance to be performed during the next 6 months and why it is necessary.

(ii) The date the planned maintenance will begin and end.

(iii) A quantified estimate of the HAP and criteria pollutant emissions that will be emitted during the period of planned maintenance.

(iv) An analysis showing the emissions reductions resulting from the planned maintenance as opposed to delaying the maintenance until the next unit turnaround.

(v) Actions you will take to minimize emissions during the period of planned maintenance.

§ 63.1576 What records must I keep, in what form, and for how long?

(a) You must keep the records specified in paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).

(2) The records in §63.6(e)(1)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests, performance evaluations, and opacity and visible emission observations as required in §63.10(b)(2)(viii).

(b) For each continuous emission monitoring system and continuous opacity monitoring system, you must keep the records required in paragraphs (b)(1) through (5) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Monitoring data for continuous opacity monitoring systems during a performance evaluation as required in §63.6(h)(7)(i) and (ii).

(3) Previous (i.e., superceded) versions of the performance evaluation plan as required in §63.8(d)(3).

(4) Requests for alternatives to the relative accuracy test for continuous emission monitoring systems as required in §63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records in §63.6(h) for visible emission observations.

(d) You must keep records required by Tables 6, 7, 13, and 14 of this subpart (for catalytic cracking units); Tables 20, 21, 27 and 28 of this subpart (for catalytic reforming units); Tables 34 and 35 of this subpart (for sulfur recovery units); and Table 39 of this subpart (for bypass lines) to show continuous compliance with each emission limitation that applies to you.

(e) You must keep a current copy of your operation, maintenance, and monitoring plan onsite and available for inspection. You also must keep records to show continuous compliance with the procedures in your operation, maintenance, and monitoring plan.

(f) You also must keep the records of any changes that affect emission control system performance including, but not limited to, the location at which the vent stream is introduced into the flame zone for a boiler or process heater.

(g) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

(h) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(i) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records offsite for the remaining 3 years.

Other Requirements and Information

§ 63.1577 What parts of the General Provisions apply to me?

Table 44 of this subpart shows which parts of the General Provisions in §63.1 through 63.15 apply to you.

§ 63.1578 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that Agency has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (5) of this section.

(1) Approval of alternatives to the non-opacity emission limitations and work practice standards in §63.1564 through 63.1569 under §63.6(g).

(2) Approval of alternative opacity emission limitations in §63.1564 through 63.1569 under §63.6(h)(9).

(3) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(4) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(5) Approval of major alternatives to record keeping and reporting under §63.10(f) and as defined in §63.90.

§ 63.1579 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA), in 40 CFR 63.2, the General Provisions of this part (§63.1 through 63.15), and in this section as listed.

Boiler means any enclosed combustion device that extracts useful energy in the form of steam and is not an incinerator.

Catalytic cracking unit means a refinery process unit in which petroleum derivatives are continuously charged; hydrocarbon molecules in the presence of a catalyst suspended in a fluidized bed are fractured into smaller molecules, or react with a contact material suspended in a fluidized bed to improve feedstock quality for additional processing; and the catalyst or contact material is continuously regenerated by burning off coke and other deposits. The unit includes, but is not limited to, the riser, reactor, regenerator, air blowers, spent catalyst or contact material stripper, catalyst or contact material recovery equipment, and regenerator equipment for controlling air pollutant emissions and equipment used for heat recovery.

Catalytic cracking unit catalyst regenerator means one or more regenerators (multiple regenerators) which comprise that portion of the catalytic cracking unit in which coke burn-off and catalyst or contact material regeneration occurs and includes the regenerator combustion air blower(s).

Catalytic reforming unit means a refinery process unit that reforms or changes the chemical structure of naphtha into higher octane aromatics through the use of a metal catalyst and chemical reactions that include dehydrogenation, isomerization, and hydrogenolysis. The catalytic reforming unit includes the reactor, regenerator (if separate), separators, catalyst isolation and transport vessels (e.g., lock and lift hoppers), recirculation equipment, scrubbers, and other ancillary equipment.

Catalytic reforming unit regenerator means one or more regenerators which comprise that portion of the catalytic reforming unit and ancillary equipment in which the following regeneration steps typically are performed: depressurization, purge, coke burn-off, catalyst rejuvenation with a chloride (or other halogenated) compound(s), and a final purge. The catalytic reforming unit catalyst regeneration process can be done either as a semi-regenerative, cyclic, or continuous regeneration process.

Coke burn-off means the coke removed from the surface of the catalytic cracking unit catalyst or the catalytic reforming unit catalyst by combustion in the catalyst regenerator. The rate of coke burn-off is calculated using Equation 2 in §63.1564.

Combustion device means an individual unit of equipment such as a flare, incinerator, process heater, or boiler used for the destruction of organic HAP or VOC.

Combustion zone means the space in an enclosed combustion device (e.g., vapor incinerator, boiler, furnace, or process heater) occupied by the organic HAP and any supplemental fuel while burning. The combustion zone includes any flame that is visible or luminous as well as that space outside the flame envelope in which the organic HAP continues to be oxidized to form the combustion products.

Contact material means any substance formulated to remove metals, sulfur, nitrogen, or any other contaminants from petroleum derivatives.

Continuous regeneration reforming means a catalytic reforming process characterized by continuous flow of catalyst material through a reactor where it mixes with feedstock, and a portion of the catalyst is continuously removed and sent to a special regenerator where it is regenerated and continuously recycled back to the reactor.

Control device means any equipment used for recovering, removing, or oxidizing HAP in either gaseous or solid form. Such equipment includes, but is not limited to, condensers, scrubbers, electrostatic precipitators, incinerators, flares, boilers, and process heaters.

Cyclic regeneration reforming means a catalytic reforming process characterized by continual batch regeneration of catalyst in situ in any one of several reactors (e.g., 4 or 5 separate reactors) that can be isolated from and returned to the reforming operation while maintaining continuous reforming process operations (i.e., feedstock continues flowing through the remaining reactors without change in feed rate or product octane).

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limit, operating limit, or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Emission limitation means any emission limit, opacity limit, operating limit, or visible emission limit.

Flame zone means the portion of a combustion chamber of a boiler or process heater occupied by the flame envelope created by the primary fuel.

Flow indicator means a device that indicates whether gas is flowing, or whether the valve position would allow gas to flow, in or through a line.

Fuel gas system means the offsite and onsite piping and control system that gathers gaseous streams generated by the source, may blend them with sources of gas, if available, and transports the blended gaseous fuel at suitable pressures for use as fuel in heaters, furnaces, boilers, incinerators, gas turbines,

and other combustion devices located within or outside of the refinery. The fuel is piped directly to each individual combustion device, and the system typically operates at pressures over atmospheric. The gaseous streams can contain a mixture of methane, light hydrocarbons, hydrogen, and other miscellaneous species.

HCl means for the purposes of this subpart, gaseous emissions of hydrogen chloride that serve as a surrogate measure for total emissions of hydrogen chloride and chlorine as measured by Method 26 or 26A in appendix A to part 60 of this chapter or an approved alternative method.

Incinerator means an enclosed combustion device that is used for destroying organic compounds, with or without heat recovery. Auxiliary fuel may be used to heat waste gas to combustion temperatures. An incinerator may use a catalytic combustion process where a substance is introduced into an exhaust stream to burn or oxidize contaminants while the substances itself remains intact, or a thermal process which uses elevated temperatures as a primary means to burn or oxidize contaminants.

Ni means, for the purposes of this subpart, particulate emissions of nickel that serve as a surrogate measure for total emissions of metal HAP, including but not limited to: antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, nickel, and selenium as measured by Method 29 in appendix A to part 60 of this chapter or by an approved alternative method.

Oxidation control system means an emission control system which reduces emissions from sulfur recovery units by converting these emissions to sulfur dioxide.

PM means, for the purposes of this subpart, emissions of particulate matter that serve as a surrogate measure of the total emissions of particulate matter and metal HAP contained in the particulate matter, including but not limited to: antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, nickel, and selenium as measured by Methods 5B or 5F in appendix A to part 60 of this chapter or by an approved alternative method.

Process heater means an enclosed combustion device that primarily transfers heat liberated by burning fuel directly to process streams or to heat transfer liquids other than water.

Process vent means, for the purposes of this subpart, a gas stream that is continuously or periodically discharged during normal operation of a catalytic cracking unit, catalytic reforming unit, or sulfur recovery unit, including gas streams that are discharged directly to the atmosphere, gas streams that are routed to a control device prior to discharge to the atmosphere, or gas streams that are diverted through a product recovery device line prior to control or discharge to the atmosphere.

Reduced sulfur compounds means hydrogen sulfide, carbonyl sulfide, and carbon disulfide.

Reduction control system means an emission control system which reduces emissions from sulfur recovery units by converting these emissions to hydrogen sulfide.

Responsible official means responsible official as defined in 40 CFR 70.2.

Semi-regenerative reforming means a catalytic reforming process characterized by shutdown of the entire reforming unit (e.g., which may employ three to four separate reactors) at specified intervals or at the owner's or operator's convenience for in situ catalyst regeneration.

Sulfur recovery unit means a process unit that recovers elemental sulfur from gases that contain reduced sulfur compounds and other pollutants, usually by a vapor-phase catalytic reaction of sulfur dioxide and hydrogen sulfide. This definition does not include a unit where the modified reaction is carried out in a water solution which contains a metal ion capable of oxidizing the sulfide ion to sulfur, e.g., the LO–CAT II process.

TOC means, for the purposes of this subpart, emissions of total organic compounds, excluding methane and ethane, that serve as a surrogate measure of the total emissions of organic HAP compounds, including but not limited to, acetaldehyde, benzene, hexane, phenol, toluene, and xylenes and non-HAP VOC as measured by Method 25 or 25A in appendix A to part 60 of this chapter or an approved alternative method.

TRS means, for the purposes of this subpart, emissions of total reduced sulfur compounds, expressed as an equivalent sulfur dioxide concentration, that serve as a surrogate measure of the total emissions of sulfide HAP carbonyl sulfide and carbon disulfide as measured by Method 15 in appendix A to part 60 of this chapter or by an approved alternative method.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

Tables 1 through 44 of 40 CFR Part 63, Subpart UUU

The permittee shall comply with the emissions limitations, continuous monitoring requirements, work practice standards, reporting requirements, notification of compliance requirements, testing requirements and compliance requirements in accordance with 40 CFR Part 63, Subpart UUU - Tables 1 through 44, which are included in the text of Attachment 1 (original promulgation) and Attachment 2 (amendment) hereto, and are hereby incorporated into this term as if fully rewritten.

16. 40 CFR Part 63, Subpart EEEE - National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)

§ 63.2330 What is the purpose of this subpart?

This subpart establishes national emission limitations, operating limits, and work practice standards for organic hazardous air pollutants (HAP) emitted from organic liquids distribution (OLD) (non-gasoline) operations at major sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations, operating limits, and work practice standards.

§ 63.2334 Am I subject to this subpart?

(a) Except as provided for in paragraphs (b) and (c) of this section, you are subject to this subpart if you own or operate an OLD operation that is located at, or is part of, a major source of HAP emissions. An OLD operation may occupy an entire plant site or be collocated with other industrial (e.g., manufacturing) operations at the same plant site.

(b) Organic liquid distribution operations located at research and development facilities, consistent with section 112(c)(7) of the Clean Air Act (CAA), are not subject to this subpart.

(c) Organic liquid distribution operations do not include the activities and equipment, including product loading racks, used to process, store, or transfer organic liquids at facilities listed in paragraph (c) (1) and (2) of this section.

(1) Oil and natural gas production field facilities, as the term "facility" is defined in §63.761 of subpart HH.

(2) Natural gas transmission and storage facilities, as the term "facility" is defined in §63.1271 of subpart HHH.

§ 63.2338 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, or existing OLD operation affected source.

(b) Except as provided in paragraph (c) of this section, the affected source is the collection of activities and equipment used to distribute organic liquids into, out of, or within a facility that is a major source of HAP. The affected source is composed of:

(1) All storage tanks storing organic liquids.

(2) All transfer racks at which organic liquids are loaded into or unloaded out of transport vehicles and/or containers.

(3) All equipment leak components in organic liquids service that are associated with pipelines, except as provided in paragraph (c)(2) of this section, and with storage tanks and transfer racks storing, loading, or unloading organic liquids.

(4) All transport vehicles while they are loading or unloading organic liquids at transfer racks.

(c) The equipment listed in paragraphs (c)(1) through (4) of this section and used in the identified operations is excluded from the affected source.

(1) Storage tanks, transfer racks, and equipment leak components that are part of an affected source under another 40 CFR part 63 national emission standards for hazardous air pollutants regulation (NESHAP).

(2) Equipment leak components associated with pipelines that transfer organic liquids directly to or from storage tanks subject to another 40 CFR part 63 NESHAP or to or from non-tank process unit components (e.g., process reactors).

(3) Non-permanent storage tanks, transfer racks, and equipment leak components used in special situation distribution loading and unloading operations (such as maintenance or upset liquids management).

(4) Storage tanks, transfer racks, and equipment leak components used to conduct maintenance activities, such as stormwater management, liquid removal from tanks for inspections and maintenance, or changeovers to a different liquid stored in a storage tank.

(d) An affected source is a new affected source if you commenced construction of the affected source after April 2, 2002, and you meet the applicability criteria in §63.2334 at the time you commenced operation.

(e) An affected source is reconstructed if you meet the criteria for reconstruction as defined in §63.2.

(f) An affected source is existing if it is not new or reconstructed.

§ 63.2342 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to the schedule identified in paragraph (a)(1) or (2) of this section, as applicable.

(1)(i) Except as provided in paragraph (a)(1)(ii) of this section, if you startup your new affected source on or before February 3, 2004 or if you reconstruct your affected source on or before February 3, 2004, you must comply with the emission limitations, operating limits, and work practice standards for new and reconstructed sources in this subpart no later than February 3, 2004.

(ii) For any emission source listed in paragraph §63.2338(b) at an affected source that commenced construction or reconstruction after April 2, 2002, but before February 3, 2004, that is required to be controlled based on the applicability criteria in this subpart, but:

(A) Would not have been required to be controlled based on the applicability criteria as proposed for this subpart, you must comply with the emission limitations, operating limits, and work practice standards for each such emission source based on the schedule found in paragraph (b) of this section or at startup, whichever is later; or

(B) Would have been subject to a less stringent degree of control requirement as proposed for this subpart, you must comply with the emission limitations, operating limits, and work practice standards in this subpart for each such emission source based on the schedule found in paragraph (b) of this section or at startup, whichever is later, and if you start up your affected new or reconstructed source before February 5, 2007, you must comply with the emission limitations, operating limits, and work practice standards for each such emission source as proposed for this subpart, until you are required to comply with the emission limitations, operating limits, and work practice standards in this subpart for each such emission source based on the schedule found in paragraph (b) of this section.

(2) If you commence construction of or reconstruct your affected source after February 3, 2004, you must comply with the emission limitations, operating limits, and work practice standards for new and reconstructed sources in this subpart upon startup of your affected source.

(b)(1) If you have an existing affected source, you must comply with the emission limitations, operating limits, and work practice standards for existing affected sources no later than February 5, 2007, except as provided in paragraph (b)(2) of this section.

(2) Floating roof storage tanks at existing affected sources must be in compliance with the work practice standards in Table 4 to this subpart, item 1, at all times after the next degassing and cleaning activity or within 10 years after February 3, 2004, whichever occurs first. If the first degassing and cleaning activity occurs during the 3 years following February 3, 2004, the compliance date is February 5, 2007.

(c) If you have an area source that does not commence reconstruction but increases its emissions or its potential to emit such that it becomes a major source of HAP emissions and an existing affected source subject to this subpart, you must be in compliance by 3 years after the area source becomes a major source.

(d) You must meet the notification requirements in §63.2382(a) according to the schedules in §63.2382(a) and (b)(1) through (3) and in subpart A of this part. Some of these notifications must be submitted before the compliance dates for the emission limitations, operating limits, and work practice standards in this subpart.

Emission Limitations, Operating Limits, and Work Practice Standards

§ 63.2346 What emission limitations, operating limits, and work practice standards must I meet?

(a) Storage tanks. For each storage tank storing organic liquids that meets the tank capacity and liquid vapor pressure criteria for control in Table 2 to this subpart, items 1 through 5, you must comply with paragraph (a)(1), (2), or (3) of this section. For each storage tank storing organic liquids that meets the tank capacity and liquid vapor pressure criteria for control in Table 2 to this subpart, item 6, you must comply with paragraph (a)(1) of this section.

(1) Meet the emission limits specified in Table 2 to this subpart and comply with the applicable requirements specified in 40 CFR part 63, subpart SS, for meeting emission limits, except substitute the term “storage tank” at each occurrence of the term “storage vessel” in subpart SS.

(2) Route emissions to fuel gas systems or back into the process as specified in 40 CFR part 63, subpart SS.

(3) Comply with 40 CFR part 63, subpart WW (control level 2).

(b) Transfer racks. For each transfer rack that meets the facility-level organic liquid loading volume and transfer rack organic HAP content criteria for control in Table 2 to this subpart, items 7 through 9, you must comply with paragraph (b)(1), (2), or (3) of this section.

(1) Meet the emission limits specified in Table 2 to this subpart and comply with the applicable requirements for transfer racks specified in 40 CFR part 63, subpart SS, for meeting emission limits.

(2) Route emissions to fuel gas systems or back into the process as specified in 40 CFR part 63, subpart SS.

(3) Use a vapor balancing system that routes organic HAP vapors displaced from the loading of organic liquids into transport vehicles to the appropriate storage tank.

(c) Equipment leak components. For each pump, valve, and sampling connection that operates in organic liquids service for at least 300 hours per year, you must comply with the applicable requirements under

40 CFR part 63, subpart TT (control level 1), subpart UU (control level 2), or subpart H. Pumps, valves, and sampling connectors that are insulated to provide protection against persistent sub-freezing temperatures are subject to the "difficult to monitor" provisions in the applicable subpart selected by the owner or operator. This paragraph only applies if the affected source has at least one storage tank or transfer rack that meets the applicability criteria for control in Table 2 to this subpart.

(d) Transport vehicles. For each transport vehicle equipped with vapor collection equipment, you must comply with paragraph (d)(1) of this section. For each transport vehicle without vapor collection equipment, you must comply with paragraph (d)(2) of this section.

(1) Follow the steps in 40 CFR 60.502(e) to ensure that organic liquids are loaded only into vapor-tight transport vehicles and comply with the provisions in 40 CFR 60.502(f) through (i), except substitute the term "transport vehicle" at each occurrence of the term "tank truck" or "gasoline tank truck" in those paragraphs.

(2) Ensure that organic liquids are loaded only into transport vehicles that have a current certification in accordance with the U.S. Department of Transportation (DOT) pressure test requirements in 49 CFR part 180 for cargo tanks or 49 CFR 173.31 for tank cars.

(e) Operating limits. For each high throughput transfer rack, you must meet each operating limit in Table 3 to this subpart for each control device used to comply with the provisions of this subpart whenever emissions from organic liquids are routed to the control device. For each storage tank and low throughput transfer rack, you must comply with the requirements for monitored parameters as specified in subpart SS of this part for storage vessels and low throughput transfer racks, respectively. Alternatively, you may comply with the operating limits in Table 3 to this subpart.

(f) If you elect to demonstrate compliance with a percent reduction requirement in Table 2 to this subpart using total organic compounds (TOC) rather than organic HAP, you must first demonstrate, subject to approval of the Administrator, that TOC is an appropriate surrogate for organic HAP in your case; that is, for your storage tank(s) and/or transfer rack(s), the percent destruction of organic HAP is equal to or higher than the percent destruction of TOC. This demonstration must be conducted prior to or during the initial compliance test.

(g) As provided in §63.6(g), you may request approval from the Administrator to use an alternative to the emission limitations, operating limits, and work practice standards in this section. You must follow the procedures in §63.177(b) through (e) in applying for permission to use such an alternative. If you apply for permission to use an alternative to the emission limitations, operating limits, and work practice standards in this section, you must submit the information described in §63.6(g)(2).

(h) Emission sources that are part of the affected source as specified in §63.2338, but which are not subject to the provisions of paragraphs (a) through (d) of this section, are only subject to the requirements specified in §63.2386(d).

(i) Opening of a safety device is allowed at any time that it is required to avoid unsafe operating conditions.

(j) If you elect to comply with this subpart by combining emissions from different emission sources subject to this subpart in a single control device, then you must comply with the provisions specified in §63.982(f).

General Compliance Requirements

§ 63.2350 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations, operating limits, and work practice standards in this subpart at all times when the equipment identified in §63.2338(b)(1) through (4) is in OLD operation.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).

(c) You must develop and implement a written startup, shutdown, and malfunction (SSM) plan according to the provisions in §63.6(e)(3).

Testing and Initial Compliance Requirements

§ 63.2354 What performance tests, design evaluations, and performance evaluations must I conduct?

(a)(1) For each performance test that you conduct, you must use the procedures specified in subpart SS of this part and the provisions specified in paragraph (b) of this section.

(2) For each design evaluation you conduct, you must use the procedures specified in subpart SS of this part.

(3) For each performance evaluation of each continuous monitoring system (CMS) you conduct, you must follow the requirements in §63.8(e).

(b)(1) For nonflare control devices, you must conduct each performance test according to the requirements in §63.7(e)(1), and either §63.988(b), §63.990(b), or §63.995(b), using the procedures specified in §63.997(e).

(2) You must conduct three separate test runs for each performance test on a nonflare control device as specified in §63.7(e)(3) and 63.997(e)(1)(v). Each test run must last at least 1 hour, except as provided in §63.997(e)(1)(v)(A) and (B).

(3)(i) In addition to EPA Method 25 or 25A of 40 CFR part 60, appendix A, to determine compliance with the organic HAP or TOC emission limit, you may use EPA Method 18 of 40 CFR part 60, appendix A. If you use EPA Method 18 to measure compliance with the percentage efficiency limit, you must first determine which organic HAP are present in the inlet gas stream (i.e., uncontrolled emissions) using knowledge of the organic liquids or the screening procedure described in EPA Method 18. In conducting the performance test, you must analyze samples collected as specified in EPA Method 18, simultaneously at the inlet and outlet of the control device. Quantify the emissions for the same organic HAP identified as present in the inlet gas stream for both the inlet and outlet gas streams of the control device.

(ii) If you use EPA Method 18 of 40 CFR part 60, appendix A, to measure compliance with the emission concentration limit, you must first determine which organic HAP are present in the inlet gas stream using knowledge of the organic liquids or the screening procedure described in EPA Method 18. In conducting the performance test, analyze samples collected as specified in EPA Method 18 at the outlet of the control device. Quantify the control device outlet emission concentration for the same organic HAP identified as present in the inlet or uncontrolled gas stream.

(4) If a principal component of the uncontrolled or inlet gas stream to the control device is formaldehyde, you may use EPA Method 316 of appendix A of this part instead of EPA Method 18 of 40 CFR part 60, appendix A, for measuring the formaldehyde. If formaldehyde is the predominant organic HAP in the inlet gas stream, you may use EPA Method 316 alone to measure formaldehyde either at the inlet and outlet of the control device using the formaldehyde control efficiency as a surrogate for total organic HAP or TOC efficiency, or at the outlet of a combustion device for determining compliance with the emission concentration limit.

(5) You may not conduct performance tests during periods of SSM, as specified in §63.7(e)(1).

(c) To determine the HAP content of the organic liquid, you may use EPA Method 311 of 40 CFR part 63, appendix A, or other method approved by the Administrator. In addition, you may use other means, such as voluntary consensus standards, material safety data sheets (MSDS), or certified product data sheets, to determine the HAP content of the organic liquid. If the method you select to determine the HAP content provides HAP content ranges, you must use the upper end of each HAP content range in determining the total HAP content of the organic liquid. The EPA may require you to test the HAP content of an organic liquid using EPA Method 311 or other method approved by the Administrator. If the results of the EPA Method 311 (or any other approved method) are different from the HAP content determined by another means, the EPA Method 311 (or approved method) results will govern.

§ 63.2358 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) You must conduct initial performance tests and design evaluations according to the schedule in §63.7(a)(2), or by the compliance date specified in any applicable State or Federal new source review construction permit to which the affected source is already subject, whichever is earlier.

(b)(1) For storage tanks and transfer racks at existing affected sources complying with the emission limitations listed in Table 2 to this subpart, you must demonstrate initial compliance with the emission limitations within 180 days after February 5, 2007.

(2) For storage tanks and transfer racks at reconstructed or new affected sources complying with the emission limitations listed in Table 2 to this subpart, you must conduct your initial compliance demonstration with the emission limitations within 180 days after the initial startup date for the affected source or February 3, 2004, whichever is later.

(c)(1) For storage tanks at existing affected sources complying with the work practice standard in Table 4 to this subpart, you must conduct your initial compliance demonstration the next time the storage tank is emptied and degassed, but not later than 10 years after February 3, 2004.

(2) For transfer racks and equipment leak components at existing affected sources complying with the work practice standards in Table 4 to this subpart, you must conduct your initial compliance demonstration within 180 days after February 5, 2007.

(d) For storage tanks, transfer racks, and equipment leak components at reconstructed or new affected sources complying with the work practice standards in Table 4 to this subpart, you must conduct your initial compliance demonstration within 180 days after the initial startup date for the affected source.

§ 63.2362 When must I conduct subsequent performance tests?

(a) For nonflare control devices, you must conduct subsequent performance testing required in Table 5 to this subpart, item 1, at any time the EPA requests you to in accordance with section 114 of the CAA.

(b)(1) For each transport vehicle that you own that is equipped with vapor collection equipment and loads organic liquids at an affected transfer rack, you must perform the vapor tightness testing required in Table 5 to this subpart, item 2, on that transport vehicle at least once per year.

(2) For transport vehicles that you own that do not have vapor collection equipment, you must maintain current certification in accordance with the U.S. DOT pressure test requirements in 49 CFR part 180 for cargo tanks or 49 CFR 173.31 for tank cars.

§ 63.2366 What are my monitoring installation, operation, and maintenance requirements?

(a) You must install, operate, and maintain a CMS on each control device required in order to comply with this subpart. If you use a continuous parameter monitoring system (CPMS) (as defined in §63.981), you must comply with the applicable requirements for CPMS in subpart SS of this part for the control device being used. If you use a continuous emissions monitoring system (CEMS), you must comply with the requirements in §63.8.

(b) For nonflare control devices controlling storage tanks and low throughput transfer racks, you must submit a monitoring plan according to the requirements in subpart SS of this part for monitoring plans.

§ 63.2370 How do I demonstrate initial compliance with the emission limitations, operating limits, and work practice standards?

(a) You must demonstrate initial compliance with each emission limitation and work practice standard that applies to you as specified in Tables 6 and 7 to this subpart.

(b) You demonstrate initial compliance with the operating limits requirements specified in §63.2346(e) by establishing the operating limits during the initial performance test or design evaluation.

(c) You must submit the results of the initial compliance demonstration in the Notification of Compliance Status according to the requirements in §63.2382(b).

Continuous Compliance Requirements

§ 63.2374 When do I monitor and collect data to demonstrate continuous compliance and how do I use the collected data?

(a) You must monitor and collect data according to subpart SS of this part and paragraphs (b) and (c) of this section.

(b) When using a control device to comply with this subpart, you must monitor continuously or collect data at all required intervals at all times that the emission source and control device are in OLD operation, except for CMS malfunctions (including any malfunction preventing the CMS from operating properly), associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments).

(c) Do not use data recorded during CMS malfunctions, associated repairs, required quality assurance or control activities, or periods when emissions from organic liquids are not routed to the control device in data averages and calculations used to report emission or operating levels. Do not use such data in fulfilling a minimum data availability requirement, if applicable. You must use all of the data collected during all other periods, including periods of SSM, in assessing the operation of the control device.

§ 63.2378 How do I demonstrate continuous compliance with the emission limitations, operating limits, and work practice standards?

(a) You must demonstrate continuous compliance with each emission limitation, operating limit, and work practice standard in Tables 2 through 4 to this subpart that applies to you according to the methods specified in subpart SS of this part and in Tables 8 through 10 to this subpart, as applicable.

(b) You must follow the requirements in §63.6(e)(1) and (3) during periods of startup, shutdown, malfunction, or nonoperation of the affected source or any part thereof. In addition, the provisions of paragraphs (b)(1) through (3) of this section apply.

(1) The emission limitations in this subpart apply at all times except during periods of nonoperation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies. The emission limitations of this subpart apply during periods of SSM, except as provided in paragraphs (b)(2) and (3) of this section. During periods of SSM, the owner or operator must follow the applicable provisions of the SSM plan required by §63.2350(c). However, if a SSM, or period of nonoperation of one portion of the affected source does not affect the ability of a particular emission source to comply with the emission limitations to which it is subject, then that emission source is still required to comply with the applicable emission limitations of this subpart during the startup, shutdown, malfunction, or period of nonoperation.

(2) The owner or operator must not shut down control devices or monitoring systems that are required or utilized for achieving compliance with this subpart during periods of SSM while emissions are being routed to such items of equipment if the shutdown would contravene requirements of this subpart applicable to such items of equipment. This paragraph (b)(2) does not apply if the item of equipment is malfunctioning. This paragraph (b)(2) also does not apply if the owner or operator shuts down the compliance equipment (other than monitoring systems) to avoid damage due to a contemporaneous SSM of the affected source or portion thereof. If the owner or operator has reason to believe that monitoring equipment would be damaged due to a contemporaneous SSM of the affected source of portion thereof, the owner or operator must provide documentation supporting such a claim in the next Compliance report required in Table 11 to this subpart, item 1. Once approved by the Administrator, the provision for ceasing to collect, during a SSM, monitoring data that would otherwise be required by the provisions of this subpart must be incorporated into the SSM plan.

(3) During SSM, you must implement, to the extent reasonably available, measures to prevent or minimize excess emissions. For purposes of this paragraph (b)(3), the term “excess emissions” means emissions greater than those allowed by the emission limits that apply during normal operational

periods. The measures to be taken must be identified in the SSM plan, and may include, but are not limited to, air pollution control technologies, recovery technologies, work practices, pollution prevention, monitoring, and/or changes in the manner of operation of the affected source. Back-up control devices are not required, but may be used if available.

(c) Periods of planned routine maintenance of a control device used to control storage tanks or transfer racks, during which the control device does not meet the emission limits in Table 2 to this subpart, must not exceed 240 hours per year.

(d) If you elect to route emissions from storage tanks or transfer racks to a fuel gas system or to a process, as allowed by §63.982(d), to comply with the emission limits in Table 2 to this subpart, the total aggregate amount of time during which the emissions bypass the fuel gas system or process during the calendar year without being routed to a control device, for all reasons (except SSM or product changeovers of flexible operation units and periods when a storage tank has been emptied and degassed), must not exceed 240 hours.

Notifications, Reports, and Records

§ 63.2382 What notifications must I submit and when and what information should be submitted?

(a) You must submit each notification in subpart SS of this part, Table 12 to this subpart, and paragraphs (b) through (d) of this section that applies to you. You must submit these notifications according to the schedule in Table 12 to this subpart and as specified in paragraphs (b) through (d) of this section.

(b)(1) Initial Notification. If you startup your affected source before February 3, 2004, you must submit the Initial Notification no later than 120 calendar days after February 3, 2004.

(2) If you startup your new or reconstructed affected source on or after February 3, 2004, you must submit the Initial Notification no later than 120 days after initial startup.

(c) If you are required to conduct a performance test, you must submit the Notification of Intent to conduct the test at least 60 calendar days before it is initially scheduled to begin as required in §63.7(b)(1).

(d)(1) Notification of Compliance Status. If you are required to conduct a performance test, design evaluation, or other initial compliance demonstration as specified in Table 5, 6, or 7 to this subpart, you must submit a Notification of Compliance Status.

(2) The Notification of Compliance Status must include the information required in §63.999(b) and in paragraphs (d)(2)(i) through (viii) of this section.

(i) The results of any applicability determinations, emission calculations, or analyses used to identify and quantify organic HAP emissions from the affected source.

(ii) The results of emissions profiles, performance tests, engineering analyses, design evaluations, flare compliance assessments, inspections and repairs, and calculations used to demonstrate initial compliance according to Tables 6 and 7 to this subpart. For performance tests, results must include descriptions of sampling and analysis procedures and quality assurance procedures.

(iii) Descriptions of monitoring devices, monitoring frequencies, and the operating limits established during the initial compliance demonstrations, including data and calculations to support the levels you establish.

(iv) Listing of all operating scenarios.

(v) Descriptions of worst-case operating and/or testing conditions for the control device(s).

(vi) Identification of emission sources subject to overlapping requirements described in §63.2396 and the authority under which you will comply.

(vii) The applicable information specified in §63.1039(a)(1) through (3) for all pumps and valves subject to the work practice standards for equipment leak components in Table 4 to this subpart, item 3.

(viii) If you are complying with the vapor balancing work practice standard for transfer racks according to Table 4 to this subpart, item 2.a, include a statement to that effect, and a statement that the pressure vent settings on the affected storage tanks are greater than or equal to 2.5 pounds per square inch gauge (psig).

§ 63.2386 What reports must I submit and when and what information is to be submitted in each?

(a) You must submit each report in subpart SS of this part, Table 11 to this subpart, Table 12 to this subpart, and in paragraphs (c) through (e) of this section that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report according to Table 11 to this subpart and by the dates shown in paragraphs (b)(1) through (3) of this section, by the dates shown in subpart SS of this part, and by the dates shown in Table 12 to this subpart, whichever are applicable.

(1)(i) The first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.2342 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your affected source in §63.2342.

(ii) The first Compliance report must be postmarked no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.2342.

(2)(i) Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(ii) Each subsequent Compliance report must be postmarked no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(3) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), you may submit the first and subsequent Compliance

reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) First Compliance report. The first Compliance report must contain the information specified in paragraphs (c)(1) through (10) of this section.

(1) Company name and address.

(2) Statement by a responsible official, including the official's name, title, and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

(3) Date of report and beginning and ending dates of the reporting period.

(4) Any changes to the information listed in §63.2382(d)(1) that have occurred since the submittal of the Notification of Compliance Status.

(5) If you had a SSM during the reporting period and you took actions consistent with your SSM plan, the Compliance report must include the information described in §63.10(d)(5)(i).

(6) If there are no deviations from any emission limitation or operating limit that applies to you and there are no deviations from the requirements for work practice standards, a statement that there were no deviations from the emission limitations, operating limits, or work practice standards during the reporting period.

(7) If there were no periods during which the CMS was out of control as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out of control during the reporting period.

(8) For closed vent systems and control devices used to control emissions, the information specified in paragraphs (c)(8)(i) and (ii) of this section for those planned routine maintenance activities that would require the control device to not meet the applicable emission limit.

(i) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6 months. This description must include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(ii) A description of the planned routine maintenance that was performed for the control device during the previous 6 months. This description must include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the applicable emission limit due to planned routine maintenance.

(9) A listing of all emission sources that are part of the affected source but are not subject to any of the emission limitations, operating limits, or work practice standards of this subpart.

(10) A listing of all transport vehicles into which organic liquids were loaded at affected transfer racks during the previous 6 months for which vapor tightness documentation as required in §63.2390(d) was not on file at the facility.

(d) Subsequent Compliance reports. Subsequent Compliance reports must contain the information in paragraphs (c)(1) through (10) of this section and, where applicable, the information in paragraphs (d)(1) through (3) of this section.

(1) For each deviation from an emission limitation occurring at an affected source where you are using a CMS to comply with an emission limitation in this subpart, you must include in the Compliance report the applicable information in paragraphs (d)(1)(i) through (xii) of this section. This includes periods of SSM.

(i) The date and time that each malfunction started and stopped.

(ii) The dates and times that each CMS was inoperative, except for zero (low-level) and high-level checks.

(iii) For each CMS that was out of control, the information in §63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of SSM, or during another period.

(v) A summary of the total duration of the deviations during the reporting period, and the total duration as a percentage of the total emission source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(vii) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percentage of the total emission source operating time during that reporting period.

(viii) An identification of each organic HAP that was potentially emitted during each deviation based on the known organic HAP contained in the liquid(s).

(ix) A brief description of the emission source(s) at which the CMS deviation(s) occurred.

(x) A brief description of each CMS that was out of control during the period.

(xi) The date of the latest certification or audit for each CMS.

(xii) A brief description of any changes in CMS, processes, or controls since the last reporting period.

(2) Include in the Compliance report the information in paragraphs (d)(2)(i) through (iii) of this section, as applicable.

(i) For each storage tank and transfer rack subject to control requirements, include periods of planned routine maintenance during which the control device did not comply with the applicable emission limits in Table 2 to this subpart.

(ii) For each storage tank controlled with a floating roof, include a copy of the inspection record (required in §63.1065(b)) when inspection failures occur.

(iii) If you elect to use an extension for a floating roof inspection in accordance with §63.1063(c)(2)(iv)(B) or (e)(2), include the documentation required by those paragraphs.

(3) Include in the Compliance report each new operating scenario which has occurred since the time period covered by the last Compliance report. For each new operating scenario, you must provide verification that the established operating conditions for any associated control device have not been exceeded and that any required calculations and engineering analyses have been performed.

(e) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 11 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission limitation in this subpart, we will consider submission of the Compliance report as satisfying any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report will not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the applicable title V permitting authority.

§ 63.2390 What records must I keep?

(a) You must keep all records identified in subpart SS of this part and in Table 12 to this subpart that are applicable, including records related to notifications and reports, SSM, performance tests, CMS, and performance evaluation plans.

(b) You must keep the records required to show continuous compliance, as required in subpart SS of this part and in Tables 8 through 10 to this subpart, with each emission limitation, operating limit, and work practice standard that applies to you.

(c) For each transport vehicle into which organic liquids are loaded at an affected transfer rack, you must keep the applicable records in paragraphs (c)(1) and (2) of this section.

(1) For transport vehicles equipped with vapor collection equipment, the documentation described in 40 CFR 60.505(b), except that the test title is: Transport Vehicle Pressure Test-EPA Reference Method 27.

(2) For transport vehicles without vapor collection equipment, current certification in accordance with the U.S. DOT pressure test requirements in 49 CFR part 180 for cargo tanks or 49 CFR 173.31 for tank cars.

(3) You must keep records of the actual annual facility-level organic liquid loading volume through transfer racks out of the facility to document the applicability of the emission limitations in Table 2, items 7 through 10, to this subpart.

§ 63.2394 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious inspection and review according to §63.10(b)(1). In addition, on-site records may be stored in electronic form at a separate location from the site provided they can be accessed and printed at the site within 1 hour after a request by the applicable title V permitting authority.

(b) As specified in §63.10(b)(1), you must keep your files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You may keep the records off site for the remaining 3 years.

Other Requirements and Information

§ 63.2396 What compliance options do I have if part of my plant is subject to both this subpart and another subpart?

(a) Compliance with other regulations for storage tanks.

(1)(i) After the compliance dates specified in §63.2342, if you have a storage tank that is subject to 40 CFR part 60, subpart Kb, not as the result of another 40 CFR part 63 subpart, and that storage tank is in OLD operation, you must meet all of the requirements of this subpart for that storage tank when the storage tank is in OLD operation.

(ii) If you have a storage tank that is in compliance with 40 CFR part 60, subpart Kb, as the result of complying with another 40 CFR part 63 subpart, that storage tank is not subject to this subpart.

(2) After the compliance dates specified in §63.2342, if you have a storage tank that is subject to 40 CFR part 61, subpart Y, and that storage tank is in OLD operation, you must meet all of the requirements of this subpart for that storage tank when the storage tank is in OLD operation.

(b) Compliance with other regulations for transfer racks. After the compliance dates specified in §63.2342, if you have a transfer rack that is subject to 40 CFR part 61, subpart BB, and that transfer rack is in OLD operation, you must meet the all of the requirements of this subpart for that transfer rack when the transfer rack is in OLD operation.

(c) Compliance with other regulations for equipment leak components.

(1) After the compliance dates specified in §63.2342, if you have pumps, valves, or sampling connections that are subject to a 40 CFR part 60 subpart, and those pumps, valves, and sampling connections are in OLD operation and in organic liquids service, as defined in this subpart, you must comply with the provisions of each subpart for those equipment leak components.

(2) After the compliance dates specified in §63.2342, if you have pumps, valves, or sampling connections subject to 40 CFR part 63, subpart GGG, and those pumps, valves, and sampling connections are in OLD operation and in organic liquids service, as defined in this subpart, you may elect to comply with the provisions of this subpart for all such equipment leak components. You must identify in the Notification of Compliance Status required by §63.2382(b) the provisions with which you will comply.

(d) [Reserved]

(e) Overlap with other regulations for monitoring, record keeping, or reporting with respect to control devices. After the compliance dates specified in §63.2342, if any control device subject to this subpart is also subject to monitoring, record keeping, and reporting requirements of another 40 CFR part 63 subpart, the owner or operator must be in compliance with the monitoring, record keeping, and reporting requirements of this subpart EEEE. If complying with the monitoring, record keeping, and reporting requirements of the other subpart satisfies the monitoring, record keeping, and reporting requirements of this subpart, the owner or operator may elect to continue to comply with the monitoring, record keeping, and reporting requirements of the other subpart. In such instances, the owner or operator will be deemed to be in compliance with the monitoring, record keeping, and reporting requirements of this subpart. The owner or operator must identify the other subpart being complied with in the Notification of Compliance Status required by §63.2382(b).

§ 63.2398 What parts of the General Provisions apply to me?

Table 12 to this subpart shows which parts of the General Provisions in §63.1 through 63.15 apply to you.

§ 63.2402 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (U.S. EPA) or a delegated authority such as your State, local, or eligible tribal agency. If the EPA Administrator has delegated authority to your State, local, or eligible tribal agency, then that agency, as well as the EPA, has the authority to implement and enforce this subpart. You should contact your EPA Regional Office (see list in §63.13) to find out if this subpart is delegated to your State, local, or eligible tribal agency.

(b) In delegating implementation and enforcement authority for this subpart to a State, local, or eligible tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraphs (b)(1) through (4) of this section are retained by the EPA Administrator and are not delegated to the State, local, or eligible tribal agency.

(1) Approval of alternatives to the nonopacity emission limitations, operating limits, and work practice standards in §63.2346(a) through (c) under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to record keeping and reporting under §63.10(f) and as defined in §63.90.

§ 63.2406 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in §63.2, and in this section. If the same term is defined in another subpart and in this section, it will have the meaning given in this section for purposes of this subpart.

Actual annual average temperature, for organic liquids, means the temperature determined using the following methods:

(1) For heated or cooled storage tanks, use the calculated annual average temperature of the stored organic liquid as determined from a design analysis of the storage tank.

(2) For ambient temperature storage tanks:

(i) Use the annual average of the local (nearest) normal daily mean temperatures reported by the National Climatic Data Center; or

(ii) Use any other method that the EPA approves.

Annual average true vapor pressure means the equilibrium partial pressure exerted by the total organic HAP in the stored or transferred organic liquid. For the purpose of determining if a liquid meets the definition of an organic liquid, the vapor pressure is determined using standard conditions of 77 degrees F and 29.92 inches of mercury. For the purpose of determining whether an organic liquid meets the applicability criteria in Table 2, items 1 through 6, to this subpart, use the actual annual average temperature as defined in this subpart. The vapor pressure value in either of these cases is determined:

(1) In accordance with methods described in American Petroleum Institute Publication 2517, Evaporative Loss from External Floating-Roof Tanks (incorporated by reference, see §63.14);

(2) Using standard reference texts;

(3) By the American Society for Testing and Materials Method D2879-83, 96 (incorporated by reference, see §63.14); or

(4) Using any other method that the EPA approves.

Cargo tank means a liquid-carrying tank permanently attached and forming an integral part of a motor vehicle or truck trailer. This term also refers to the entire cargo tank motor vehicle or trailer. For the purpose of this subpart, vacuum trucks used exclusively for maintenance or spill response are not considered cargo tanks.

Closed vent system means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapors from an emission point to a control device. This system does not include the vapor collection system that is part of some transport vehicles or the loading arm or hose that is used for vapor return. For transfer racks, the closed vent system begins at, and includes, the first block valve on the downstream side of the loading arm or hose used to convey displaced vapors.

Combustion device means an individual unit of equipment, such as a flare, oxidizer, catalytic oxidizer, process heater, or boiler, used for the combustion of organic emissions.

Container means a portable unit in which a material can be stored, transported, treated, disposed of, or otherwise handled. Examples of containers include, but are not limited to, drums and portable cargo containers known as "portable tanks" or "totes."

Control device means any combustion device, recovery device, recapture device, or any combination of these devices used to comply with this subpart. Such equipment or devices include, but are not limited to, absorbers, adsorbers, condensers, and combustion devices. Primary condensers, steam strippers, and fuel gas systems are not considered control devices.

Crude oil means any of the naturally occurring liquids commonly referred to as crude oil, regardless of specific physical properties. Only those crude oils downstream of the first point of custody transfer after the production field are considered crude oils in this subpart.

Custody transfer means the transfer of hydrocarbon liquids after processing and/or treatment in the producing operations, or from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

Design evaluation means a procedure for evaluating control devices that complies with the requirements in §63.985(b)(1)(i).

Deviation means any instance in which an affected source subject to this subpart, or portion thereof, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limitation (including any operating limit) or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart, and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation (including any operating limit) or work practice standard in this subpart during SSM.

Emission limitation means an emission limit, opacity limit, operating limit, or visible emission limit.

Equipment leak component means each pump, valve, and sampling connection system used in organic liquids service at an OLD operation. Valve types include control, globe, gate, plug, and ball. Relief and check valves are excluded.

Gasoline means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals (4.0 pounds per square inch absolute (psia)) or greater which is used as a fuel for internal combustion engines. Aviation gasoline is included in this definition.

In organic liquids service means that an equipment leak component contains or contacts organic liquids having 5 percent by weight or greater of the organic HAP listed in Table 1 to this subpart.

On-site or on site means, with respect to records required to be maintained by this subpart or required by another subpart referenced by this subpart, that records are stored at a location within a major source which encompasses the affected source. On-site includes, but is not limited to, storage at the affected

source to which the records pertain, storage in central files elsewhere at the major source, or electronically available at the site.

Organic liquid means:

(1) Any non-crude oil liquid or liquid mixture that contains 5 percent by weight or greater of the organic HAP listed in Table 1 to this subpart, as determined using the procedures specified in §63.2354(c).

(2) Any crude oils downstream of the first point of custody transfer.

(3) Organic liquids for purposes of this subpart do not include the following liquids:

(i) Gasoline (including aviation gasoline), kerosene (No. 1 distillate oil), diesel (No. 2 distillate oil), asphalt, and heavier distillate oils and fuel oils;

(ii) Any fuel consumed or dispensed on the plant site directly to users (such as fuels for fleet refueling or for refueling marine vessels that support the operation of the plant);

(iii) Hazardous waste;

(iv) Wastewater;

(v) Ballast water: or

(vi) Any non-crude oil liquid with an annual average true vapor pressure less than 0.7 kilopascals (0.1 psia).

Organic liquids distribution (OLD) operation means the combination of activities and equipment used to store or transfer organic liquids into, out of, or within a plant site regardless of the specific activity being performed. Activities include, but are not limited to, storage, transfer, blending, compounding, and packaging.

Permitting authority means one of the following:

(1) The State Air Pollution Control Agency, local agency, or other agency authorized by the EPA Administrator to carry out a permit program under 40 CFR part 70; or

(2) The EPA Administrator, in the case of EPA-implemented permit programs under title V of the CAA (42 U.S.C. 7661) and 40 CFR part 71.

Plant site means all contiguous or adjoining surface property that is under common control, including surface properties that are separated only by a road or other public right-of-way. Common control includes surface properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination.

Research and development facility means laboratory and pilot plant operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and which are not engaged in the manufacture of products for commercial sale, except in a de minimis manner.

Responsible official means responsible official as defined in 40 CFR 70.2 and 40 CFR 71.2, as applicable.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device that functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event.

Shutdown means the cessation of operation of an OLD affected source, or portion thereof, required or used to comply with this subpart, or the emptying and degassing of a storage tank. Shutdown as defined here includes, but is not limited to, events that result from periodic maintenance, replacement of equipment, or repair.

Startup means the setting in operation of an OLD affected source, or portion thereof, for any purpose. Startup also includes the placing in operation of any individual piece of equipment required or used to comply with this subpart including, but not limited to, control devices and monitors.

Storage tank means a stationary unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, or reinforced plastic) that provide structural support and is designed to hold a bulk quantity of liquid. Storage tanks do not include:

(1) Units permanently attached to conveyances such as trucks, trailers, rail cars, barges, or ships;

(2) Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere;

(3) Bottoms receiver tanks;

(4) Surge control vessels;

(5) Vessels storing wastewater; or

(6) Reactor vessels associated with a manufacturing process unit.

Tank car means a car designed to carry liquid freight by rail, and including a permanently attached tank.

Transfer rack means a single system used to load organic liquids into transport vehicles. It includes all loading arms, pumps, meters, shutoff valves, relief valves, and other piping and equipment necessary for the transfer operation. Transfer equipment and operations that are physically separate (i.e., do not share common piping, valves, and other equipment) are considered to be separate transfer racks.

Transport vehicle means a cargo tank or tank car.

Vapor balancing system means a piping system that collects organic HAP vapors displaced from transport vehicles during loading and routes the collected vapors to the storage tank from which the liquid being loaded originated or compresses the vapors for feeding into a chemical manufacturing process unit.

Vapor collection system means any equipment located at the source (i.e., at the OLD operation) that is not open to the atmosphere; that is composed of piping, connections, and, if necessary, flow-inducing devices; and that is used for containing and conveying vapors displaced during the loading of transport vehicles to a control device or for vapor balancing. This does not include any of the vapor collection equipment that is installed on the transport vehicle.

Vapor-tight transport vehicle means a transport vehicle that has been demonstrated to be vapor-tight. To be considered vapor-tight, a transport vehicle equipped with vapor collection equipment must undergo a pressure change of no more than 250 pascals (1 inch of water) within 5 minutes after it is pressurized to 4,500 pascals (18 inches of water). This capability must be demonstrated annually using the procedures specified in EPA Method 27 of 40 CFR part 60, appendix A. For all other transport vehicles, vapor tightness is demonstrated by performing the U.S. DOT pressure test procedures for tank cars and cargo tanks.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

Tables 1 through 12 of 40 CFR Part 63, Subpart EEEE

The permittee shall comply with the emissions limitations, continuous monitoring requirements, work practice standards, reporting requirements, notification of compliance requirements, testing requirements and compliance requirements in accordance with 40 CFR Part 63, Subpart EEEE - Tables 1 through 12.

You must use the organic HAP information listed in the following table to determine which of the liquids handled at your facility meet the HAP content criteria in the definition of Organic Liquid in §63.2406.

Table 1 to Subpart EEEE of Part 63–Organic Hazardous Air Pollutants

Compound Name	CAS Number[a]
2,4-D salts and esters	94-75-7
Acetaldehyde	75-07-0
Acetonitrile	75-05-8
Acetophenone	98-86-2
Acrolein	107-02-8
Acrylamide	79-06-1
Acrylic acid	79-10-7
Acrylonitrile	107-13-1
Allyl chloride	107-05-1
Aniline	62-53-3
Benzene	71-43-2

Biphenyl	92-52-4
Butadiene (1,3-)	106-99-0
Carbon tetrachloride	56-23-5
Chlorine	7782-50-5
Chloroacetic acid	79-11-8
Chlorobenzene	108-90-7
2-Chloro-1,3-butadiene (Chloroprene)	126-99-8
Chloroform	67-66-3
m-Cresol	108-39-4
o-Cresol	95-48-7
p-Cresol	106-44-5
Cresols/cresylic acid	1319-77-3
Cumene	98-82-8
Dibenzofurans	132-64-9
Dibutylphthalate	84-74-2
Dichloroethane (1,2-) (Ethylene dichloride) (EDC)	107-06-2
Dichloropropene (1,3-)	542-75-6
Diethanolamine	111-42-2
Diethyl aniline (N,N-)	121-69-7
Diethylene glycol monobutyl ether	112-34-5
Diethylene glycol monomethyl ether	111-77-3
Diethyl sulfate	64-67-5
Dimethyl formamide	68-12-2
Dimethylhydrazine (1,1-)	57-14-7
Dioxane (1,4-) (1,4-Diethyleneoxide)	123-91-1
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106-89-8
Epoxybutane (1,2-)	106-88-7
Ethyl acrylate	140-88-5
Ethylbenzene	100-41-4

Ethyl chloride (Chloroethane)	75-00-3
Ethylene dibromide (Dibromomethane)	106-93-4
Ethylene glycol	107-21-1
Ethylene glycol dimethyl ether	110-71-4
Ethylene glycol monomethyl ether	109-86-4
Ethylene glycol monomethyl ether acetate	110-49-6
Ethylene glycol monophenyl ether	122-99-6
Ethylene oxide	75-21-8
Ethylidene dichloride (1,1-Dichloroethane)	75-34-3
Formaldehyde	50-00-0
Hexachloroethane	67-72-1
Hexane	110-54-3
Hydrochloric acid	7647-01-0
Hydrazine	302-01-2
Hydrogen fluoride	7664-39-3
Hydroquinone	123-31-9
Isophorone	78-59-1
Maleic anhydride	108-31-6
Methanol	67-56-1
Methyl chloride (Chloromethane)	74-87-3
Methylene chloride (Dichloromethane)	75-09-2
Methylenedianiline (4,4'-)	101-77-9
Methylene diphenyl diisocyanate	101-68-8
Methyl ethyl ketone (2-Butanone) (MEK)	78-93-3
Methyl hydrazine	60-34-4
Methyl isobutyl ketone (Hexone) (MIBK)	108-10-1
Methyl methacrylate	80-62-6
Methyl tert-butyl ether (MTBE)	1634-04-4
Naphthalene	91-20-3

Nitrobenzene	98-95-3
Phenol	108-9-52
Phthalic anhydride	85-44-9
Polycyclic organic matter	50-32-8
Propionaldehyde	123-38-6
Propylene dichloride (1,2-Dichloropropane)	78-87-5
Propylene oxide	75-56-9
Quinoline	91-22-5
Styrene	100-42-5
Styrene oxide	96-09-3
Tetrachloroethane (1,1,2,2-)	79-34-5
Tetrachloroethylene (Perchloroethylene)	127-18-4
Titanium tetrachloride	7550-45-0
Toluene	108-88-3
Toluene diisocyanate (2,4-)	584-84-9
o-Toluidine	95-53-4
Trichlorobenzene (1,2,4-)	120-82-1
Trichloroethane (1,1,1-) (Methyl chloroform)	71-55-6
Trichloroethane (1,1,2-) (Vinyl trichloride)	79-00-5
Trichloroethylene	79-01-6
Triethylamine	121-44-8
Trimethylpentane (2,2,4-)	540-84-1
Vinyl acetate	108-05-4
Vinyl chloride (Chloroethylene)	75-01-4
Vinylidene chloride (1,1-Dichloroethylene)	75-35-4
Xylene (m-)	108-38-3
Xylene (o-)	95-47-6
Xylene (p-)	106-42-3
Xylenes (isomers and mixtures)	1330-20-7

[a]CAS numbers refer to the Chemical Abstracts Services registry number assigned to specific compounds, isomers, or mixtures of compounds.

As stated in §63.2346, you must comply with the emission limits for the organic liquids distribution emission sources as follows:

Table 2 to Subpart EEEE of Part 63--Emission Limits

If you own or operate...	And if...	Then you must...
1. a storage tank at an existing affected source with a capacity $18.9 cubic meters (5,000 gallons) and <189.3 cubic meters (50,000 gallons).	a. the stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is $27.6 kilopascals (4.0 psia) and <76.6 kilopascals (11.1 psia).	i. reduce emissions of organic HAP (or, upon approval, TOC) by 95 weight-percent or, as an option, to an exhaust concentration less than or equal to 20 parts per million by volume, on a dry basis corrected to 3% oxygen for combustion devices using supplemental combustion air, by venting emissions through a closed vent system to any combination of control devices meeting the applicable requirements of 40 CFR part 63, subpart SS; OR ii. comply with the work practice standards specified in Table 4 to this subpart, item 1.a, for tanks storing the liquids described in that table.
	b. the stored organic liquid is crude oil.	i. See the requirement in item 1.a.i or 1.a.ii of this table.

2. a storage tank at an existing affected source with a capacity $189.3 cubic meters (50,000 gallons).	a. the stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is <76.6 kilopascals (11.1 psia).	i. see the requirement in item 1.a.i or 1.a.ii of this table.
	b. the stored organic liquid is crude oil.	i. see the requirement in item 1.a.i or 1.a.ii of this table.
3. a storage tank at a reconstructed or new affected source with a capacity $18.9 cubic meters (5,000 gallons) and <37.9 cubic meters (10,000 gallons).	a. the stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is $27.6 kilopascals (4.0 psia) and <76.6 kilopascals (11.1 psia).	i. see the requirement in item 1.a.i or 1.a.ii of this table.
	b. the stored organic liquid is crude oil.	i. see the requirement in item 1.a.i or 1.a.ii of this table.

4. a storage tank at a reconstructed or new affected source with a capacity $37.9 cubic meters (10,000 gallons)and <189.3 cubic meters (50,000 gallons).	a. the stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is $0.7 kilopascals (0.1 psia) and <76.6 kilopascals (11.1 psia).	i. see the requirement in item 1.a.i or 1.a.ii of this table.
	b. the stored organic liquid is crude oil.	i. see the requirement in item 1.a.i or 1.a.ii of this table.
5. a storage tank at a reconstructed or new affected source with a capacity $189.3 cubic meters (50,000 gallons).	a. the stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is <76.6 kilopascals (11.1 psia).	i. see the requirement in item 1.a.i or 1.a.ii of this table.
	b. the stored organic liquid is crude oil.	i. see the requirement in item 1.a.i or 1.a.ii of this table.

6. A storage tank at an existing, reconstructed, or new affected source meeting the capacity criteria specified in Table 2, items 1 through 5 of this subpart.	a. the stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is $76.6 kilopascals (11.1 psia).	i. reduce emissions of organic HAP (or, upon approval, TOC) by 95 weight-percent or, as an option, to an exhaust concentration less than or equal to 20 parts per million by volume, on a dry basis corrected to 3% oxygen for combustion devices using supplemental combustion air, by venting emissions through a closed vent system to any combination of control devices meeting the applicable requirements of 40 CFR part 63, subpart SS.
		i. see the requirements in item 6.a.1 of this table.
	b. the stored organic liquid is crude oil.	

7. a transfer rack at an existing facility where the total actual annual facility-level organic liquid loading volume through transfer racks out of the facility is between 800,000 gallons and less than 10 million gallons.	a. the organic HAP content of the organic liquid through the transfer rack is at least 98% by weight.	i. reduce emissions of organic HAP (or, upon approval, TOC) from the loading of organic liquids by venting emissions through a closed vent system to any combination of control devices achieving 98 weight-percent HAP reduction, or as an option to an exhaust concentration less than or equal to 20 parts per million by volume, on a dry basis corrected to 3% oxygen for combustion devices using supplemental combustion air; AND ii. vent emissions through a closed vent system to any combination of control devices meeting the applicable requirements of 40 CFR part 63, subpart SS, AND iii. comply with the work practice standards specified in Table 4 to this subpart, item 2.
8. a transfer rack at an existing facility where the total actual annual facility-level organic liquid loading volume through transfer racks out of the facility is š10 million gallons.		i. see the requirements in items 7.a.i through 7.a.iii of this table.

9. a transfer rack at a new facility where the total actual annual facility-level organic liquid loading volume through transfer racks out of the facility is less than 800,000 gallons.	a. the organic HAP content of the organic liquid through the transfer rack is at least 25% by weight and the transfer rack is used for transferring organic liquids into transport vehicles.	i. see the requirements in items 7.a.i through 7.a.iii of this table.
	b. the transfer rack is used for the filling of containers with a capacity equal to or greater than 55 gallons.	i. Comply with the provisions of §§63.924 through 63.927 of 40 CFR part 63, Subpart PP - National Emission Standards for Containers, Container Level 3 controls.
10. a transfer rack at a new facility where the total actual annual facility-level organic liquid loading volume through transfer racks out of the facility is equal to or greater than 800,000 gallons.	a. the transfer rack is used for transferring organic liquids into transport vehicles.	i. see the requirements in items 7.a.i through 7.a.iii of this table.
	b. the transfer rack is used for the filling of containers with a capacity equal to or greater than 55 gallons.	i. Comply with the provisions of §§63.924 through 63.927 of 40 CFR part 63, Subpart PP - National Emission Standards for Containers, Container Level 3 controls.

As stated in §63.2346(e), you must comply with the operating limits for existing, reconstructed, or new affected sources as follows:

Table 3 to Subpart EEEE of Part 63--Operating Limits - High Throughput Transfer Racks

For each existing, each reconstructed, and each new affected source using...	You must...
1. a thermal oxidizer to comply with an emission limit in Table 2 to this subpart.	maintain the daily average fire box or combustion zone temperature greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.
2. a catalytic oxidizer to comply with an emission limit in Table 2 to this subpart.	a. replace the existing catalyst bed before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND b. maintain the daily average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND c. maintain the daily average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.

3. an absorber to comply with an emission limit in Table 2 to this subpart.	a. maintain the daily average concentration level of organic compounds in the absorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR b. maintain the daily average scrubbing liquid temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND c. maintain the difference between the specific gravities of the saturated and fresh scrubbing fluids greater than or equal to the difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.
4. a condenser to comply with an emission limit in Table 2 to this subpart.	a. maintain the daily average concentration level of organic compounds at the condenser exit less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR b. maintain the daily average condenser exit temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.

5. an adsorption system with adsorbent regeneration to comply with an emission limit in Table 2 to this subpart.	a. maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR b. maintain the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND c. before the adsorption cycle commences, achieve and maintain the temperature of the adsorption bed after regeneration less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND d. achieve a pressure reduction during each adsorption bed regeneration cycle greater than or equal to the pressure reduction established during the design evaluation or performance test that demonstrated compliance with the emission limit.

6. an adsorption system without adsorbent regeneration to comply with an emission limit in Table 2 to this subpart.	a. maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR b. replace the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation or performance test before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND c. maintain the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.
7. a flare to comply with an emission limit in Table 2 to this subpart.	a. comply with the equipment and operating requirements in §63.987(a); AND b. conduct an initial flare compliance assessment in accordance with §63.987(b); AND c. install and operate monitoring equipment as specified in §63.987(c).
8. another type of control device to comply with an emission limit in Table 2 to this subpart.	submit a monitoring plan as specified in §§63.995(c) and 63.2366(c), and monitor the control device in accordance with that plan.

As stated in §63.2346, you may elect to comply with one of the work practice standards for existing, reconstructed, or new affected sources in the following table. If you elect to do so, ...

Table 4 to Subpart EEEE of Part 63--Work Practice Standards

For each...	You must...
1. storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 1 through 5.	a. comply with the requirements of 40 CFR part 63, subpart WW (control level 2), if you elect to meet 40 CFR part 63, subpart WW (control level 2), requirements as an alternative to the emission limit in Table 2 to this subpart, items 1 through 5; OR b. comply with the requirements of §63.984 in 40 CFR part 63, subpart SS, for routing emissions to a fuel gas system or back to the process.
2. transfer rack at an existing, reconstructed, or new affected source meeting the facility-level organic liquid loading volume and transfer rack HAP content for organic liquids specified in Table 2 to this subpart, items 7 through 9.	a. if the option of a vapor balancing system is selected, install and operate a system that meets the requirements in Table 7 to this subpart, item 3.b; OR b. comply with the requirements of §63.984 in 40 CFR part 63, subpart SS, for routing emissions to a fuel gas system or back to the process.
3. pump, valve, and sampling connection that operates in organic liquids service at least 300 hours per year at an existing, reconstructed, or new affected source.	comply with the requirements for pumps, valves, and sampling connections in 40 CFR part 63, subpart TT (control level 1), subpart UU (control level 2), or subpart H.
4. transport vehicles equipped with vapor collection equipment,	follow the steps in 40 CFR 60.502(e) to ensure that organic liquids are loaded only into vapor-tight transport vehicles, and comply with the provisions in 40 CFR §60.502(f), (g), (h), and (i), except substitute the term transport vehicle at each occurrence of tank truck or gasoline tank truck in those paragraphs.
5. transport vehicles without vapor collection equipment,	ensure that organic liquids are loaded only into transport vehicles that have a current certification in accordance with the U.S. DOT pressure test requirements in 49 CFR 180 (cargo tanks) or 49 CFR 173.31 (tank cars).

As stated in §§63.2354(a) and 63.2362, you must comply with the requirements for performance tests and design evaluations for existing, reconstructed, or new affected sources as follows:

Table 5 to Subpart EEEE of Part 63--Requirements for Performance Tests and Design Evaluations

For...	You must conduct...	According to...	Using...	To determine...	According to the following requirements...
1. each existing, each recon-structed, and each new affected source using a nonflare control device to comply with an emission limit in Table 2 to this subpart, items 1 through 9.	a. a performance test to determine the organic HAP (or, upon approval, TOC) control efficiency of each nonflare control device, OR the exhaust concentration of each combustion device; OR	i. §63.985(b) (1)(ii), §63.988(b), §63.990(b), or §63.995(b).	(1) EPA Method 1 or 1A in appendix A of 40 CFR part 60, as appro-priate.	(A) sampling port locations and the required number of traverse points.	(i) sampling sites must be located at the inlet and outlet of each control device if complying with the control efficiency requirement or at the outlet of the control device if complying with the exhaust concentration requirement; AND (ii) the outlet sampling site must be located at each control device prior to any releases to the atmosphere.
			(2) EPA Method 2, 2A, 2C, 2D, 2F, or 2G in appendix A of 40 CFR part 60, as appro-priate.	(A) stack gas velocity and volumetric flow rate.	See the requirements in items 1.a.i.(1)(A) (i) and (ii) of this table.

(3) EPA Method 3 or 3B in appendix A of 40 CFR part 60, as appro-priate.	(A) concen-tration of CO_2 and O_2 and dry molecular weight of the stack gas.	See the requirements in items 1.a.i.(1)(A)(i) and (ii) of this table.
(4) EPA Method 4 in appendix A of 40 CFR part 60.	(A) moisture content of the stack gas.	See the requirements in items 1.a.i.(1)(A)(i) and (ii) of this table.

(5) EPA Method 18, 25, or 25A in appendix A of 40 CFR part 60, as appro-priate, or EPA Method 316 in appendix A of 40 CFR part 63 for measuring form-aldehyde.	(A) total organic HAP (or, upon approval, TOC), or form-aldehyde emissions.	(i) the organic HAP used for the calibration gas for EPA Method 25A must be the single organic HAP representing the largest percent by volume of emissions; AND (ii) during the performance test, you must establish the operating parameter limits within which total organic HAP (or, upon approval, TOC) emissions are reduced by the required weight-percent or, as an option for nonflare combustion devices, to 20 ppmv exhaust concentration.

	b. a design evaluation (for nonflare control devices) to determine the organic HAP (or, upon approval, TOC) control efficiency of each nonflare control device, or the exhaust concentration of each combustion control device.	§63.985(b)(1)(i).			during a design evaluation, you must establish the operating parameter limits within which total organic HAP, (or, upon approval, TOC) emissions are reduced by at least 95 weight-percent or as an option to 20 ppmv exhaust concentration.
2. each transport vehicle that you own or operate that is equipped with vapor collection equipment and loads organic liquids at an affected transfer rack at an existing, recon-structed, or new affected source.	a performance test to determine the vapor tightness of the tank and then repair as needed until it passes the test.		EPA Method 27 in appendix A of 40 CFR part 60.	vapor tightness.	The pressure change in the tank must be no more than 250 pascals (1 inch of water) in 5 minutes after it is pressurized to 4,500 pascals (18 inches of water).

As stated in §§63.2370(a) and 63.2382(b), you must show initial compliance with the emission limits for existing, reconstructed, or new affected sources as follows:

Table 6 to Subpart EEEE of Part 63--Initial Compliance With Emission Limits

For each ...	For the following emission limit...	You have demonstrated initial compliance if...
1. storage tank at an existing, reconstructed, or new affected source meeting either set of tank capacity and liquid organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 1 through 6.	reduce total organic HAP (or, upon approval, TOC) emissions by at least 95 weight-percent, or as an option for combustion devices to an exhaust concentration of #20 ppmv.	total organic HAP (or, upon approval, TOC) emissions, based on the results of the performance testing or design evaluation specified in Table 5 to this subpart, item 1.a or 1.b, respectively, are reduced by at least 95 weight-percent or as an option to an exhaust concentration of #20 ppmv.
2. transfer rack at an existing, reconstructed, or new affected source meeting the facility-level organic liquid loading volume and transfer rack HAP content for organic liquids criteria specified in Table 2 to this subpart, items 7 through 9.	reduce total organic HAP (or, upon approval, TOC) emissions by at least 98 weight-percent, or as an option for combustion devices to an exhaust concentration of #20 ppmv.	total organic HAP (or, upon approval, TOC) emissions, based on the results of the performance testing or design evaluation specified in Table 5 to this subpart, item 1.a or 1.b, respectively, are reduced by at least 98 weight-percent or as an option for combustion devices to an exhaust concentration of #20 ppmv.

Table 7 to Subpart EEEE of Part 63--Initial Compliance with Work Practice Standards

For each...	If you...	You have demonstrated initial compliance if...
1. storage tank at an existing affected source meeting either set of tank capacity and liquid organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 1 or 2.	a. install a floating roof or equivalent control that meets the requirements in Table 4 to this subpart, item 1.a.	i. after emptying and degassing, you visually inspect each internal floating roof before the refilling of the storage tank and perform seal gap inspections of the primary and secondary rim seals of each external floating roof within 90 days after the refilling of the storage tank.
		i. you meet the requirements in §63.984(b) and submit the statement of connection required by §63.984(c).
	b. route emissions to a fuel gas system or back to the process.	
2. storage tank at a recon-structed or new affected source meeting any set of tank capacity and liquid organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 3 through 5.	a. install a floating roof or equivalent control that meets the requirements in Table 4 to this subpart, item 1.a.	i. you visually inspect each internal floating roof before the initial filling of the storage tank, and perform seal gap inspections of the primary and secondary rim seals of each external floating roof within 90 days after the initial filling of the storage tank.
		i. see item 1.b.i of this table.
	b. route emissions to a fuel gas system or back to the process.	

3. transfer rack at an existing, reconstructed, or new affected source that meets the facility-level organic liquid loading volume and transfer rack HAP content for organic liquids criteria specified in Table 2 to this subpart, items 7 through 9.	a. load organic liquids only into transport vehicles having current vapor tightness certification as described in Table 4 to this subpart, item 4.a and item 5.a. b. install and operate a vapor balancing system.	i. you comply with the provisions specified in Table 4 to this subpart, item 4.a and item 5.a, as applicable. i. you design and operate the vapor balancing system to route organic HAP vapors displaced from loading of organic liquids into transport vehicles to the appropriate storage tank or process unit.
4. equipment leak component, as defined in §63.2406, that operates in organic liquids service $ 300 hours per year at an existing, reconstructed, or new affected source.	a. carry out a leak detection and repair program or equivalent control according to one of the subparts listed in Table 4 to this subpart, item 3.a.	i. you specify which one of the control programs listed in Table 4 to this subpart you have selected, OR ii. provide written specifications for your equivalent control approach.

As stated in §§63.2378(a) and (b) and 63.2390(b), you must show continuous compliance with the emission limits for existing, reconstructed, or new affected sources according to the following table:

Table 8 to Subpart EEEE of Part 63--Continuous Compliance with Emission Limits

For each ...	For the following emission limit...	You must demonstrate continuous compliance by...
1. storage tank at an existing, recon-structed, or new affected source meeting any set of tank capacity and liquid organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 1 through 6.	a. reduce total organic HAP (or, upon approval, TOC) emissions from the closed vent system and control device by 95 weight-percent or greater, or as an option to 20 ppmv or less of organic HAP (or, upon approval, TOC) in the exhaust of combustion devices.	i. performing CMS monitoring and collecting data according to §§63.2366, 63.2374, and 63.2378; AND ii. maintaining the operating limits established during the design evaluation or performance test.

2. transfer rack at an existing, recon-structed, or new affected source that meets the facility-level organic liquid loading volume and transfer rack HAP content for organic liquids criteria specified in Table 2, to this subpart items 7 through 9.	reduce total organic HAP (or, upon approval, TOC) emissions from the closed vent system and control device by 98 weight-percent or greater, or as an option to 20 ppmv or less of organic HAP (or, upon approval, TOC) in the exhaust of combustion devices.	see the compliance demonstration in items 1.a.i and ii of this table.

As stated in §§63.2378(a) and (b) and 63.2390(b), you must show continuous compliance with the operating limits for existing, reconstructed, or new affected sources according to the following table:

Table 9 to Subpart EEEE of Part 63--Continuous Compliance with Operating Limits - High Throughput Transfer Racks

For each existing, recon-structed, and each new affected source using ...	For the following operating limit...	You must demonstrate continuous compliance by...
1. a thermal oxidizer to comply with an emission limit in Table 2 to this subpart.	a. maintain the daily average fire box or combustion zone, as applicable, temperature greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. continuously monitoring and recording fire box or combustion zone, as applicable, temperature every 15 minutes and maintaining the daily average fire box temperature greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. keeping the applicable records required in §63.998.
2. a catalytic oxidizer to comply with an emission limit in Table 2 to this subpart.	a. replace the existing catalyst bed before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. replacing the existing catalyst bed before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. keeping the applicable records required in §63.998.

	b. maintain the daily average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. continuously monitoring and recording the temperature at the inlet of the catalyst bed at least every 15 minutes and maintaining the daily average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. keeping the applicable records required in §63.998.
	c. maintain the daily average temperature` difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. continuously monitoring and recording the temperature at the outlet of the catalyst bed every 15 minutes and maintaining the daily average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. keeping the applicable records required in §63.998.

3. an absorber to comply with an emission limit in Table 2 to this subpart.	a. maintain the daily average concentration level of organic compounds in the absorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR	continuously monitoring the organic concentration in the absorber exhaust and maintaining the daily average concentration less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit.
	b. maintain the daily average scrubbing liquid temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.; AND	continuously monitoring the scrubbing liquid temperature and maintaining the daily average temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND
	c. maintain the difference between the specific gravities of the saturated and fresh scrubbing fluids greater than or equal to the difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.	maintaining the difference between the specific gravities greater than or equal to the difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.

4. a condenser to comply with an emission limit in Table 2 to this subpart.	a. maintain the daily average concentration level of organic compounds at the exit of the condenser less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR	continuously monitoring the organic concentration at the condenser exit and maintaining the daily average concentration less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit.

	b. maintain the daily average condenser exit temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. continuously monitoring and recording the temperature at the exit of the condenser at least every 15 minutes and maintaining the daily average temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. keeping the applicable records required in §63.998.
5. affected source using an adsorption system with adsorbent regenera-tion to comply with an emission limit in Table 2 to this subpart.	a. maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. continuously monitoring the daily average organic concentration in the adsorber exhaust and maintaining the concentration less than or equal to the reference concentration; AND ii. keeping the applicable records required in §63.998.
	b. maintain the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND	maintaining the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND

	c. before the adsorption cycle commences, achieve and maintain the temperature of the adsorption bed after regeneration less than or equal to the reference temperature established during the design evaluation or performance test AND	maintaining the temperature of the adsorption bed after regeneration less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit AND
	achieve greater than or equal to the pressure reduction during the adsorption bed regeneration cycle established during the design evaluation or performance test that demonstrated compliance with the emission limit.	achieving greater than or equal to the pressure reduction during the regeneration cycle established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND
		ii. keeping the applicable records required in §63.998.
6. an adsorption system without adsorbent regenera-tion to comply with an emission limit in Table 2 to this subpart.	a. maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR	continuously monitoring the organic concentration in the adsorber exhaust and maintaining the concentration less than or equal to the reference concentration.

	b. replace the existing adsorbent in each segment of the bed before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND	i. replacing the existing adsorbent in each segment of the bed before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. keeping the applicable records required in §63.998.
	c. maintain the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. maintaining the temperature of the adsorption bed less than or equal to the reference temperature; AND ii. keeping the applicable records required in §63.998.
7. a flare to comply with an emission limit in Table 2 to this subpart.	a. maintain a pilot flame in the flare at all times that vapors may be vented to the flare (§63.11(b)(5)).	i. continuously operating a device that detects the presence of the pilot flame; AND ii. keeping the applicable records required in §63.998.
	b. maintain a flare flame at all times that vapors are being vented to the flare (§63.11(b)(5)).	i. maintaining a flare flame at all times that vapors are being vented to the flare; AND ii. keeping the applicable records required in §63.998.
	c. operate the flare with no visible emissions, except for up to 5 minutes in any 2 consecutive hours (§63.11(b)(4)).	i. operating the flare with no visible emissions exceeding the amount allowed; AND ii. keeping the applicable records required in §63.998.

	d. operate the flare with an exit velocity that is within the applicable limits in §63.11(b)(6), (7), and (8).	i. operating the flare within the applicable exit velocity limits; AND
		ii. keeping the applicable records required in §63.998.
	e. operate the flare with a net heating value of the gas being combusted greater than the applicable minimum value in §63.11(b)(6)(ii).	i operating the flare with the gas net heating value within the applicable limit; AND
		ii. keeping the applicable records required in §63.998.
8. another type of control device to comply with an emission limit in Table 2 to this subpart.	submit a monitoring plan as specified in §§63.995(c) and 63.2366(c), and monitor the control device in accordance with that plan.	submitting a monitoring plan and monitoring the control device according to that plan.

As stated in §§63.2378(a) and (b) and 63.2386(c)(6), you must show continuous compliance with the work practice standards for existing, reconstructed, or new affected sources according to the following table:

Table 10 to Subpart EEEE of Part 63--Continuous Compliance with Work Practice Standards

For each...	For the following standard...	You must demonstrate continuous compliance by...
1. internal floating roof (IFR) storage tank at an existing, recon-structed, or new affected source meeting any set of tank capacity, and vapor pressure criteria specified in Table 2 to this subpart, items 1 through 5.	a. install a floating roof designed and operated according to the applicable specifications in §63.1063(a) and (b).	i. visually inspecting the floating roof deck, deck fittings, and rim seals of each IFR: once per year, and each time the storage tank is completely emptied and degassed, or every 10 years, whichever occurs first (§63.1063(c)(1), (d), and (e)); AND ii. keeping the tank records required in §63.1065.
2. external floating roof (EFR) storage tank at an existing, recon-structed, or new affected source meeting any set of tank capacity, and vapor pressure criteria specified in Table 2 to this subpart, items 1 through 5.	a. see the standard in item 1.a of this table.	i. visually inspecting the floating roof deck, deck fittings, and rim seals of each EFR each time the storage tank is completely emptied and degassed, or every 10 years, whichever occurs first (§63.1063(c)(2), (d), and (e)); AND ii. performing seal gap measurements on the secondary seal of each EFR at least once every year, and on the primary seal of each EFR at least every 5 years (§63.1063(c)(2), (d), and (e)); AND iii. keeping the tank records required in §63.1065.

3. IFR or EFR tank at an existing, recon-structed, or new affected source meeting any set of tank capacity, and vapor pressure criteria specified in Table 2 to this subpart, items 1 through 5.	a. repair the conditions causing storage tank inspection failures (§63.1063(e)).	i. repairing conditions causing inspection failures: before refilling the storage tank with organic liquid, or within 45 days (or up to 105 days with extensions) for a tank containing organic liquid; AND ii. keeping the tank records required in §63.1065(b).
4. transfer rack at an existing, recon-structed, or new affected source that meets the facility-level organic liquid loading volume and transfer rack HAP content for organic liquids criteria specified in Table 2 to this subpart, items 7 through 9.	a. ensure that organic liquids are loaded into transport vehicles in accordance with the requirements in Table 4 to this subpart, items 2.a, 2.b, and 2.c. b. install and operate a vapor balancing system.	i. ensuring that organic liquids are loaded into transport vehicles in accordance with the requirements in Table 4 to this subpart, items 2.a, 2.b, and 2.c.
		i. monitoring each potential source of vapor leakage in the system quarterly during the loading of a transport vehicle using the methods and procedures described in the rule requirements selected for the work practice standard for equipment leak components as specified in Table 4 to this subpart, item 3. An instrument reading of 500 ppmv defines a leak. Repair of leaks is performed according to the repair requirements specified in your selected equipment leak standards.

5. equipment leak component, as defined in §63.2406, that operates in organic liquids service at least 300 hours per year.	a. comply with the requirements of 40 CFR part 63, subpart TT, UU, or H.	i. carrying out a leak detection and repair program in accordance with one of the subparts listed in item 5.a of this table.
6. storage tank at an existing, recon-structed, or new affected source meeting any of the tank capacity and vapor pressure criteria specified in Table 2 to this subpart, items 1 through 6.	a. route emissions to a fuel gas system or back to the process.	i. continuing to meet the requirements specified in §63.984(b).

As stated in §63.2386(a), (b), and (f), you must submit compliance reports and startup, shutdown, and malfunction reports according to the following table:

Table 11 to Subpart EEEE of Part 63--Requirements for Reports

You must submit a(n)...	The report must contain...	You must submit the report...
1. Compliance report, or Periodic Report.	a. the information specified in §63.2386(c), (d), (e). If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSM plan, the report must also include the information in §63.10(d)(5)(i).	semiannually, and it must be postmarked by January 31 or July 31, in accordance with §63.2386(b).
	b. the information required by 40 CFR part 63, subpart TT, UU, or H, as applicable, for pumps, valves, and sampling connections.	
	c. the information required by §63.999(c).	see the submission requirement in item 1.a of this table. \ see the submission requirement in item 1.a of this table.
	d. the information specified in §63.1066(b) including: notification of inspection, inspection results, requests for alternate devices, and requests for extensions, as applicable.	see the submission requirement in item 1.a. of this table.

2. immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period, and you took an action that was not consistent with your SSM plan.	a. the information required in §63.10(d)(5)(ii).	i. by FAX or telephone within 2 working days after starting actions inconsistent with the plan; AND ii. by letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority (§63.10(d)(5)(ii)).

As stated in §§63.2382 and 63.2398, you must comply with the applicable General Provisions requirements as follows:

Table 12 to Subpart EEEE of Part 63--Applicability of General Provisions to Subpart EEEE

Citation	Subject	Brief Description	Applies to Subpart EEEE
§63.1	Applica-bility	Initial applicability determination; Applicability after standard established; Permit requirements; Extensions, Notifications	Yes
§63.2	Defini-tions	Definitions for part 63 standards	Yes
§63.3	Units and Abbrevia-tions	Units and abbreviations for part 63 standards	Yes
§63.4	Prohibited Activities and Circum-vention	Prohibited activities; Circumvention, Severability	Yes
§63.5	Construc-tion/ Recon-struction	Applicability; Applications; Approvals	Yes
§63.6(a)	Compliance with Standards/ O&M-Applic-ability	GP apply unless compliance extension; GP apply to area sources that become major	Yes
§63.6(b) (1)-(4)	Compliance Dates for New and Recon-structed Sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for section 112(f)	Yes
§63.6(b) (5)	Notifica-tion	Must notify if commenced construction or reconstruction after proposal	Yes

§63.6(b) (6)	[Reserved]		
§63.6(b) (7)	Compliance Dates for New and Recon-structed Area Sources that Become Major	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source	Yes
§63.6(c) (1)-(2)	Compliance Dates for Existing Sources	Comply according to date in this subpart, which must be no later than 3 years after effective date; for section 112(f) standards, comply within 90 days of effective date unless compliance extension	Yes
§63.6(c) (3)-(4)	[Reserved]		
§63.6(c) (5)	Compliance Dates for Existing Area Sources that Become Major	Area sources that become major must comply with major source standards by date indicated in this subpart or by equivalent time period (e.g., 3 years)	Yes
§63.6(d)	[Reserved]		
§63.6(e) (1)	Operation & Main-tenance	Operate to minimize emissions at all times; correct malfunctions as soon as practicable; and operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met	Yes
§63.6(e) (2)	[Reserved]		

§63.6(e) (3)	Startup, Shutdown, and Malfunc-tion (SSM) Plan	Requirement for SSM plan; content of SSM plan; actions during SSM	Yes; however, the 2-day reporting require-ment in paragraph §63.6(e)(3)(iv) does not apply.
§63.6(f) (1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM	Yes
§63.6(f) (2)-(3)	Methods for Determin-ing Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes
§63.6(g) (1)-(3)	Alterna-tive Standard	Procedures for getting an alternative standard	Yes
§63.6(h) (1)	Compliance with Opacity/ Visible Emission (VE) Standards	You must comply with opacity/VE standards at all times except during SSM	No
§63.6(h) (2)(i)	Determin-ing Compliance with Opacity/VE Standards	If standard does not state test method, use EPA Method 9 for opacity in appendix A of part 60 of this chapter and EPA Method 22 for VE in appendix A of part 60 of this chapter	No
§63.6(h) (2)(ii)	[Reserved]		
§63.6(h) (2)(iii)	Using Previous Tests to Demon-strate Compliance with Opacity/VE Standards	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart	No
§63.6(h) (3)	[Reserved]		

§63.6(h)(4)	Notifica-tion of Opacity/VE Observa-tion Date	Must notify Administrator of anticipated date of observation	No
§63.6(h)(5)(i), (iii)-(v)	Conducting Opacity/VE Observa-tions	Dates and schedule for conducting opacity/VE observations	No
§63.6(h)(5)(ii)	Opacity Test Duration and Averaging Times	Must have at least 3 hours of observation with thirty 6-minute averages	No
§63.6(h)(6)	Records of Conditions During Opacity/VE Observa-tions	Must keep records available and allow Administrator to inspect	No
§63.6(h)(7)(i)	Report Continuous Opacity Monitoring System (COMS) Monitoring Data from Perform-ance Test	Must submit COMS data with other performance test data	No
§63.6(h)(7)(ii)	Using COMS Instead of EPA Method 9	Can submit COMS data instead of EPA Method 9 results even if rule requires EPA Method 9 in appendix A of part 60 of this chapter, but must notify Administrator before performance test	No
§63.6(h)(7)(iii)	Averaging Time for COMS During Perform-ance Test	To determine compliance, must reduce COMS data to 6-minute averages	No

§63.6(h)(7)(iv)	COMS Require-ments	Owner/operator must demonstrate that COMS performance evaluations are conducted according to §63.8(e); COMS are properly maintained and operated according to §63.8(c) and data quality as §63.8(d)	No
§63.6(h)(7)(v)	Determin-ing Compliance with Opacity/VE Standards	COMS is probable but not conclusive evidence of compliance with opacity standard, even if EPA Method 9 observation shows otherwise. Requirements for COMS to be probable evidence–proper maintenance, meeting Performance Specification 1 in appendix B of part 60 of this chapter, and data have not been altered	No
§63.6(h)(8)	Determin-ing Compliance with Opacity/VE Standards	Administrator will use all COMS, EPA Method 9 (in appendix A of part 60 of this chapter), and EPA Method 22 (in appendix A of part 60 of this chapter) results, as well as information about operation and maintenance to determine compliance	Yes
§63.6(h)(9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard	Yes
§63.6(i)(1)-(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes
§63.6(j)	Presi-dential Compliance Exemption	President may exempt any source from requirement to comply with this subpart	Yes
§63.7(a)(2)	Perform-ance Test Dates	Dates for conducting initial performance testing; must conduct 180 days after compliance date	Yes

§63.7(a) (3)	Section 114 Authority	Administrator may require a performance test under CAA section 114 at any time	Yes
§63.7(b) (1)	Notifica-tion of Perform-ance Test	Must notify Administrator 60 days before the test	Yes
§63.7(b) (2)	Notifica-tion of Re-scheduling	If have to reschedule performance test, must notify Administrator of rescheduled date as soon as practicable and without delay	Yes
§63.7(c)	Quality Assurance (QA)/ Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing	Yes
§63.7(d)	Testing Facilities	Requirements for testing facilities	Yes
§63.7(e) (1)	Conditions for Conducting Perform-ance Tests	Performance tests must be conducted under representative conditions; cannot conduct performance tests during SSM	Yes
§63.7(e) (2)	Conditions for Conducting Perform-ance Tests	Must conduct according to this subpart and EPA test methods unless Administrator approves alternative	Yes

§63.7(e) (3)	Test Run Duration	Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used	Yes; however, for transfer racks per §§63.987 (b)(3)(i) (A)-(B) and 63.997(e) (1)(v)(A)-(B) provide exceptions to the require-ment for test runs to be at least 1 hour each
§63.7(f)	Alterna-tive Test Method	Procedures by which Administrator can grant approval to use an intermediate or major change, or alternative to a test method	Yes
§63.7(g)	Perform-ance Test Data Analysis	Must include raw data in performance test report; must submit performance test data 60 days after end of test with the notification of compliance status; keep data for 5 years	Yes
§63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes
§63.8(a) (1)	Applica-bility of Monitoring Require-ments	Subject to all monitoring requirements in standard	Yes
§63.8(a) (2)	Perform-ance Specifica-tions	Performance Specifications in appendix B of 40 CFR part 60 apply	Yes
§63.8(a) (3)	[Reserved]		

§63.8(a)(4)	Monitoring of Flares	Monitoring requirements for flares in §63.11 apply	Yes; however, monitor-ing require-ments in §63.987(c) also apply
§63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes
§63.8(b)(2)-(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems; must install on each affected source or after combined with another affected source before it is released to the atmosphere provided the monitoring is sufficient to demonstrate compliance with the std; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup	Yes
§63.8(c)(1)	Monitoring System Operation and Mainten-ance	Maintain monitoring system in a manner consistent with good air pollution control practices	Yes
§63.8(c)(1)(i)-(iii)	Routine and Predict-able SSM	Follow the SSM plan for routine repairs; keep parts for routine repairs readily available; reporting requirements for SSM when action is described in SSM plan	Yes
§63.8(c)(2)-(3)	Monitoring System Installa-tion	Must install to get representative emission or parameter measurements; must verify operational status before or at performance test	Yes

§63.8(c) (4)	CMS Require-ments	CMS must be operating except during breakdown, out-of control, repair, maintenance, and high-level calibration drifts; COMS must have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period; CEMS must have a minimum of one cycle of operation for each successive 15-minute period	Yes; however, COMS are not applic-able.
§63.8(c) (5)	COMS Minimum Procedures	COMS minimum procedures	No
§63.8(c) (6)-(8)	CMS Require-ments	Zero and high level calibration check requirements Out-of-control periods	Yes
§63.8(d)	CMS Quality Control	Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years; keep old versions for 5 years after revisions	Yes
§63.8(e)	CMS Perform-ance Evaluation	Notification, performance evaluation test plan, reports	Yes
§63.8(f) (1)-(5)	Alterna-tive Monitoring Method	Procedures for Administrator to approve alternative monitoring	Yes
§63.8(f) (6)	Alterna-tive to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for CEMS	Yes

§63.8(g)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that cannot be used in average	Yes; however, COMS are not applic-able
§63.9(a)	Notifica-tion Require-ments	Applicability and State delegation	Yes
§63.9(b) (1)-(2), (4)-(5)	Initial Notifica-tions	Submit notification within 120 days after effective date; notification of intent to construct/ reconstruct, notification of commencement of construction/ reconstruction, notification of startup; contents of each	Yes
§63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate (BACT/LAER)	Yes
§63.9(d)	Notifica-tion of Special Compliance Require-ments for New Sources	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes
§63.9(e)	Notifica-tion of Perform-ance Test	Notify Administrator 60 days prior	Yes
§63.9(f)	Notifica-tion of VE/Opacity Test	Notify Administrator 30 days prior	No
§63.9(g)	Additional Notifica-tions When Using CMS	Notification of performance evaluation; notification about use of COMS data; notification that exceeded criterion for relative accuracy alternative	Yes; however, there are no opacity standards

§63.9(h) (1)-(6)	Notifica-tion of Compliance Status	Contents due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after; when to submit to Federal vs. State authority	Yes; however, there are no opacity standards.
§63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted	Yes
§63.9(j)	Change in Previous Informa-tion	Must submit within 15 days after the change	Yes
§63.10(a)	Record-keeping/ Reporting	Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source	Yes
§63.10(b) (1)	Record-keeping/ Reporting	General requirements; keep all records readily available; keep for 5 years	Yes
§63.10(b) (2)(i)-(iv)	Records Related to Startup, Shutdown, and Malfunc-tion	Occurrence of each for operations (process equipment); occurrence of each malfunction of air pollution control equipment; maintenance on air pollution control equipment; actions during SSM.	Yes
§63.10(b) (2)(vi)-(xi)	CMS Records	Malfunctions, inoperative, out-of-control periods	Yes
§63.10(b) (2)(xii)	Records	Records when under waiver	Yes
§63.10(b) (2)(xiii)	Records	Records when using alternative to relative accuracy test	Yes
§63.10(b) (2)(xiv)	Records	All documentation supporting initial notification and notification of compliance status	Yes
§63.10(b) (3)	Records	Applicability determinations	Yes

§63.10(c)	Records	Additional records for CMS	Yes
§63.10(d)(1)	General Reporting Require-ments	Requirement to report	Yes
§63.10(d)(2)	Report of Perform-ance Test Results	When to submit to Federal or State authority	Yes
§63.10(d)(3)	Reporting Opacity or VE Observa-tions	What to report and when	Yes
§63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes
§63.10(d)(5)	SSM Reports	Contents and submission	Yes
§63.10(e)(1)-(2)	Additional CMS Reports	Must report results for each CEMS on a unit; written copy of CMS performance evaluation; 2-3 copies of COMS performance evaluation	Yes; however, COMS are not applic-able
§63.10(e)(3)(i)-(iii)	Reports	Schedule for reporting excess emissions and parameter monitor exceedance (now defined as deviations)	Yes; however, note that the title of the report is the compliance report; deviations include excess emissions and parameter exceed-ances

§63.10(e)(3)(iv)-(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§63.8(c)(7)-(8) and 63.10(c)(5)-(13)	Yes
§63.10(e)(3)(vi)-(viii)	Excess Emissions Report and Summary Report	Requirements for reporting excess emissions for CMS (now called deviations); requires all of the information in §§63.10(c)(5)-(13) and 63.8(c)(7)-(8)	Yes
§63.10(e)(4)	Reporting COMS Data	Must submit COMS data with performance test data	No
§63.10(f)	Waiver for Record-keeping/ Reporting	Procedures for Administrator to waive	Yes
§63.11(b)	Flares	Requirements for flares	Yes; §63.987 require-ments apply, and the section references §63.11(b)
§63.12	Delegation	State authority to enforce standards	Yes
§63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes

§63.14	Incorpora-tion by Reference	Test methods incorporated by reference	Yes
§63.15	Availa-bility of Informa-tion	Public and confidential information	Yes

17. Subpart DDDDD--National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

[The following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart DDDDD: B001, B002, B003, B004, B005, B006, B007, B008, B009, B016, B022, B024, B026, B027, and B028.]

What this Subpart Covers

a. §63.7480 What is the purpose of this subpart?

This subpart establishes national emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits and work practice standards.

b. §63.7485 Am I subject to this subpart?

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in §63.7575 that is located at, or is part of, a major source of HAP as defined in §63.2 or §63.760 (40 CFR part 63, subpart HH, National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities), except as specified in §63.7491.

c. §63.7490 What is the affected source of this subpart?

(a) This subpart applies to new, reconstructed, or existing affected sources as described in paragraphs (a)(1) and (2) of this section.

(1) The affected source of this subpart is the collection of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory located at a major source as defined in §63.7575.

(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or process heater located at a major source as defined in §63.7575.

(b) A boiler or process heater is new if you commence construction of the boiler or process heater after January 13, 2003, and you meet the applicability criteria at the time you commence construction.

(c) A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in §63.2, you commence reconstruction after January 13, 2003, and you meet the applicability criteria at the time you commence reconstruction.

(d) A boiler or process heater is existing if it is not new or reconstructed.

d. <u>§63.7491 Are any boilers or process heaters not subject to this subpart</u>?

The types of boilers and process heaters listed in paragraphs (a) through (o) of this section are not subject to this subpart.

(a) A municipal waste combustor covered by 40 CFR part 60, subpart AAAA, subpart BBBB or subpart Cb.

(b) A hospital/medical/infectious waste incinerator covered by 40 CFR part 60, subpart Ce or subpart Ec.

(c) An electric utility steam generating unit that is a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity, and supplies more than one-third of its potential electric output capacity, and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit.

(d) A boiler or process heater required to have a permit under section 3005 of the Solid Waste Disposal Act or covered by 40 CFR part 63, subpart EEE (e.g., hazardous waste boilers).

(e) A commercial and industrial solid waste incineration unit covered by 40 CFR part 60, subpart CCCC or subpart DDDD.

(f) A recovery boiler or furnace covered by 40 CFR part 63, subpart MM.

(g) A boiler or process heater that is used specifically for research and development. This does not include units that only provide heat or steam to a process at a research and development facility.

(h) A hot water heater as defined in this subpart.

(i) A refining kettle covered by 40 CFR part 63, subpart X.

(j) An ethylene cracking furnace covered by 40 CFR part 63, subpart YY.

(k) Blast furnace stoves as described in the EPA document, entitled "National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Plants - Background Information for Proposed Standards," (EPA-453/R-01-005).

(l) Any boiler and process heater specifically listed as an affected source in another standard(s) under 40 CFR part 63.

(m) Any boiler and process heater specifically listed as an affected source in another standard(s) established under section 129 of the Clean Air Act (CAA).

(n) Temporary boilers as defined in this subpart.

(o) Blast furnace gas fuel-fired boilers and process heaters as defined in this subpart.

e. <u>§63.7495 When do I have to comply with this subpart?</u>

(a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by November 12, 2004 or upon startup of your boiler or process heater, whichever is later.

(b) If you have an existing boiler or process heater, you must comply with this subpart no later than September 13, 2007.

(c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, paragraphs (c)(1) and (2) of this section apply to you.

(1) Any new or reconstructed boiler or process heater at the existing facility must be in compliance with this subpart upon startup.

(2) Any existing boiler or process heater at the existing facility must be in compliance with this subpart within 3 years after the facility becomes a major source.

(d) You must meet the notification requirements in §63.7545 according to the schedule in §63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.

Emission Limits and Work Practice Standards

f. <u>§63.7499 What are the subcategories of boilers and process heaters</u>?

(a) The subcategories of boilers and process heaters are large solid fuel, limited use solid fuel, small solid fuel, large liquid fuel, limited use liquid fuel, small liquid fuel, large gaseous fuel, limited use gaseous fuel, and small gaseous fuel. Each subcategory is defined in §63.7575.

(b) If you change an existing boiler or process heater in the large solid fuel subcategory such that its applicable subcategory also changes, and the change does not meet the definition of reconstruction as defined in subpart A of this part, you may choose to meet the applicable emission limits for the original large solid fuel subcategory.

g. <u>§63.7500 What emission limits, work practice standards, and operating limits must I meet</u>?

(a) You must meet the requirements in paragraphs (a)(1) and (2) of this section.

(1) You must meet each emission limit and work practice standard in Table 1 to this subpart that applies to your boiler or process heater, except as provided under §63.7507.

(2) You must meet each operating limit in Tables 2 through 4 to this subpart that applies to your boiler or process heater. If you use a control device or combination of control devices not covered in Tables 2 through 4 to this subpart, or you wish to establish and monitor an alternative operating limit and alternative monitoring parameters, you must apply to the United States Environmental Protection Agency (EPA) Administrator for approval of alternative monitoring under §63.8(f).

(b) As provided in §63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

General Compliance Requirements

h. §63.7505 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits (including operating limits) and the work practice standards in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).

(c) You can demonstrate compliance with any applicable emission limit using fuel analysis if the emission rate calculated according to §63.7530(d) is less than the applicable emission limit. Otherwise, you must demonstrate compliance using performance testing.

(d) If you demonstrate compliance with any applicable emission limit through performance testing, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under §63.8(f).

(1) For each continuous monitoring system (CMS) required in this section, you must develop and submit to the EPA Administrator for approval a site-specific monitoring plan that addresses paragraphs (d)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan at least 60 days before your initial performance evaluation of your CMS.

(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).

(2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.

(i) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (3), and (4)(ii);

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and

(iii) Ongoing record keeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i).

(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

(e) If you have an applicable emission limit or work practice standard, you must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).

i. <u>§63.7506 Do any boilers or process heaters have limited requirements</u>?

(a) New or reconstructed boilers and process heaters in one of the liquid fuel subcategories (the large liquid fuel subcategory, the limited use liquid fuel subcategory, or the small liquid fuel subcategory) that burn only fossil fuels and other gases and do not burn any residual oil are subject to the emission limits and applicable work practice standards in Table 1 to this subpart. You are not required to conduct a performance test to demonstrate compliance with the emission limits. You are not required to set and maintain operating limits to demonstrate continuous compliance with the emission limits. However, you must meet the requirements in paragraphs (a)(1) and (2) of this section.

(1) To demonstrate initial compliance, you must include a signed statement in the Notification of Compliance Status report required in §63.7545(e) that indicates you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels.

(2) To demonstrate continuous compliance with the applicable emission limits, you must also keep records that demonstrate that you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels. You must also include a signed statement in each semiannual compliance report required in §63.7550 that indicates you burned only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels, during the reporting period.

(b) The affected boilers and process heaters listed in paragraphs (b)(1) through (3) of this section are subject to only the initial notification requirements in §63.9(b) (i.e., they are not subject to the

emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, record keeping and reporting requirements of this subpart or any other requirements in subpart A of this part).

(1) Existing large and limited use gaseous fuel units.

(2) Existing large and limited use liquid fuel units.

(3) New small liquid fuel units that burn only gaseous fuels or distillate oil. New small liquid fuel boilers and process heaters that commence burning of any other type of liquid fuel must comply with all applicable requirements of this subpart and subpart A of this part upon startup of burning the other type of liquid fuel.

(c) The affected boilers and process heaters listed in paragraphs (c)(1) through (4) of this section are not subject to the initial notification requirements in §63.9(b) and are not subject to any requirements in this subpart or in subpart A of this part (i.e., they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSM plans, site-specific monitoring plans, record keeping and reporting requirements of this subpart, or any other requirements in subpart A of this part.

(1) Existing small solid fuel boilers and process heaters.

(2) Existing small liquid fuel boilers and process heaters.

(3) Existing small gaseous fuel boilers and process heaters.

(4) New small gaseous fuel units.

j. <u>§63.7507 What are the health-based compliance alternatives for the hydrogen chloride (HCl) and total selected metals (TSM) standards</u>?

(a) As an alternative to the requirement for large solid fuel boilers located at a single facility to demonstrate compliance with the HCl emission limit in Table 1 to this subpart, you may demonstrate eligibility for the health-based compliance alternative for HCl emissions under the procedures prescribed in appendix A to this subpart.

(b) In lieu of complying with the TSM emission standards in Table 1 to this subpart based on the sum of emissions for the eight selected metals, you may demonstrate eligibility for complying with the TSM emission standards in Table 1 based on the sum of emissions for seven selected

metals (by excluding manganese emissions from the summation of TSM emissions) under the procedures prescribed in appendix A of this subpart.

Testing, Fuel Analyses, and Initial Compliance Requirements

k. §63.7510 What are my initial compliance requirements and by what date must I conduct them?

(a) For affected sources that elect to demonstrate compliance with any of the emission limits of this subpart through performance testing, your initial compliance requirements include conducting performance tests according to §63.7520 and Table 5 to this subpart, conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521 and Table 6 to this subpart, establishing operating limits according to §63.7530 and Table 7 to this subpart, and conducting CMS performance evaluations according to §63.7525.

(b) For affected sources that elect to demonstrate compliance with the emission limits for HCl, mercury, or TSM through fuel analysis, your initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521 and Table 6 to this subpart and establish operating limits according to §63.7530 and Table 8 to this subpart.

(c) For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide according to Table 5 to this subpart. If your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to §63.7525(a).

(d) For existing affected sources, you must demonstrate initial compliance no later than 180 days after the compliance date that is specified for your source in §63.7495 and according to the applicable provisions in §63.7(a)(2) as cited in Table 10 to this subpart.

(e) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003 and November 12, 2004, you must demonstrate initial compliance with either the proposed emission limits and work practice standards or the promulgated emission limits and work practice standards no later than 180 days after November 12, 2004 or within 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(f) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003, and November 12, 2004, and you chose to comply with the proposed emission limits and work practice standards when demonstrating initial compliance, you must conduct a second compliance demonstration for the promulgated emission limits and work practice standards within 3 years after November 12, 2004 or within 3 years after startup of the affected source, whichever is later.

(g) If your new or reconstructed affected source commences construction or reconstruction after November 12, 2004, you must demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup of the source.

l. <u>§63.7515 When must I conduct subsequent performance tests or fuel analyses?</u>

(a) You must conduct all applicable performance tests according to §63.7520 on an annual basis, unless you follow the requirements listed in paragraphs (b) through (d) of this section. Annual performance tests must be completed between 10 and 12 months after the previous performance test, unless you follow the requirements listed in paragraphs (b) through (d) of this section.

(b) You can conduct performance tests less often for a given pollutant if your performance tests for the pollutant (particulate matter, HCl, mercury, or TSM) for at least 3 consecutive years show that you comply with the emission limit. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the third year and no more than 36 months after the previous performance test.

(c) If your boiler or process heater continues to meet the emission limit for particulate matter, HCl, mercury, or TSM, you may choose to conduct performance tests for these pollutants every third year, but each such performance test must be conducted no more than 36 months after the previous performance test.

(d) If a performance test shows noncompliance with an emission limit for particulate matter, HCl, mercury, or TSM, you must conduct annual performance tests for that pollutant until all performance tests over a consecutive 3-year period show compliance.

(e) If you have an applicable work practice standard for carbon monoxide and your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, you must conduct annual performance tests for carbon monoxide according to §63.7520. Each annual performance test must be conducted between 10 and 12 months after the previous performance test.

(f) You must conduct a fuel analysis according to §63.7521 for each type of fuel burned no later than 5 years after the previous fuel analysis for each fuel type. If you burn a new type of fuel,

you must conduct a fuel analysis before burning the new type of fuel in your boiler or process heater. You must still meet all applicable continuous compliance requirements in §63.7540.

(g) You must report the results of performance tests and fuel analyses within 60 days after the completion of the performance tests or fuel analyses. This report should also verify that the operating limits for your affected source have not changed or provide documentation of revised operating parameters established according to §63.7530 and Table 7 to this subpart, as applicable. The reports for all subsequent performance tests and fuel analyses should include all applicable information required in §63.7550.

m. <u>§63.7520 What performance tests and procedures must I use?</u>

(a) You must conduct all performance tests according to §63.7(c), (d), (f), and (h). You must also develop a site-specific test plan according to the requirements in §63.7(c) if you elect to demonstrate compliance through performance testing.

(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.

(c) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil must demonstrate compliance according to §63.7506(a).

(d) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals, and you must demonstrate initial compliance and establish your operating limits based on these tests. These requirements could result in the need to conduct more than one performance test.

(e) You may not conduct performance tests during periods of startup, shutdown, or malfunction.

(f) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

(g) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 of appendix A to part 60 of this chapter to convert the measured particulate matter concentrations, the measured HCl concentrations, the measured TSM concentrations, and the measured mercury concentrations that result from the initial performance test to pounds per million Btu heat input emission rates using F-factors.

n. §63.7521 What fuel analyses and procedures must I use?

(a) You must conduct fuel analyses according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable.

(b) You must develop and submit a site-specific fuel analysis plan to the EPA Administrator for review and approval according to the following procedures and requirements in paragraphs (b)(1) and (2) of this section.

(1) You must submit the fuel analysis plan no later than 180 days before the date that you intend to demonstrate compliance.

(2) You must include the information contained in paragraphs (b)(2)(i) through (vi) of this section in your fuel analysis plan.

(i) The identification of all fuel types anticipated to be burned in each boiler or process heater.

(ii) For each fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.

(iii) For each fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if your procedures are different from paragraph (c) or (d) of this section. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.

(iv) For each fuel type, the analytical methods, with the expected minimum detection levels, to be used for the measurement of selected total metals, chlorine, or mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that will be used.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(c) At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures in paragraph (c)(1) or (2) of this section.

(1) If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (c)(1)(i) and (ii) of this section.

(i) Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. Collect all the material (fines and coarse) in the full cross-section. Transfer the sample to a clean plastic bag.

(ii) Each composite sample will consist of a minimum of three samples collected at approximately equal intervals during the testing period.

(2) If sampling from a fuel pile or truck, collect fuel samples according to paragraphs (c)(2)(i) through (iii) of this section.

(i) For each composite sample, select a minimum of five sampling locations uniformly spaced over the surface of the pile.

(ii) At each sampling site, dig into the pile to a depth of 18 inches. Insert a clean flat square shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling.

(iii) Transfer all samples to a clean plastic bag for further processing.

(d) Prepare each composite sample according to the procedures in paragraphs (d)(1) through (7) of this section.

(1) Throughly mix and pour the entire composite sample over a clean plastic sheet.

(2) Break sample pieces larger than 3 inches into smaller sizes.

(3) Make a pie shape with the entire composite sample and subdivide it into four equal parts.

(4) Separate one of the quarter samples as the first subset.

(5) If this subset is too large for grinding, repeat the procedure in paragraph (d)(3) of this section with the quarter sample and obtain a one-quarter subset from this sample.

(6) Grind the sample in a mill.

(7) Use the procedure in paragraph (d)(3) of this section to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

(e) Determine the concentration of pollutants in the fuel (mercury, chlorine, and/or total selected metals) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 to this subpart.

o. <u>§63.7522 Can I use emission averaging to comply with this subpart?</u>

(a) As an alternative to meeting the requirements of §63.7500, if you have more than one existing large solid fuel boiler located at your facility, you may demonstrate compliance by emission averaging according to the procedures in this section in a State that does not choose to exclude emission averaging.

(b) For each existing large solid fuel boiler in the averaging group, the emission rate achieved during the initial compliance test for the HAP being averaged must not exceed the emission level that was being achieved on November 12, 2004 or the control technology employed during the initial compliance test must not be less effective for the HAP being averaged than the control technology employed on November 12, 2004.

(c) You may average particulate matter or TSM, HCl, and mercury emissions from existing large solid fuel boilers to demonstrate compliance with the limits in Table 1 to this subpart if you satisfy the requirements in paragraphs (d), (e), and (f) of this section.

(d) The weighted average emissions from the existing large solid fuel boilers participating in the emissions averaging option must be in compliance with the limits in Table 1 to this subpart at all times following the compliance date specified in §63.7495.

(e) You must demonstrate initial compliance according to paragraphs (e)(1) or (2).

(1) You must use equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.

$$AveWeightedEmissions = \sum_{i=1}^{n} (Er \times Sm \times Cf) \div \sum_{i=1}^{n} Sm \times Cf \qquad \text{(Eq. 1)}$$

where:

AveWeighted Emissions	=	Average weighted emissions for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input;
Er	=	Emission rate (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in §63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input;
Hm	=	Maximum rated heat input capacity of boiler, i, in units of million Btu per hour;
n	=	Number of large solid fuel boilers participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input, you can use equation 2 of this section as an alternative to using equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.

$$AveWeightedEmissions = \sum_{i=1}^{n} (Er \times Hm) \div \sum_{i=1}^{n} Hm \qquad \text{(Eq. 2)}$$

where:

AveWeighted Emissions	=	Average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.
Er	=	Emission rate (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in §63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.
Sm	=	Maximum steam generation by boiler, i, in units of pounds.
Cf	=	Conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.

(f) You must demonstrate continuous compliance on a 12-month rolling average basis determined at the end of every month (12 times per year) according to paragraphs (f)(1) and (2). The first 12-month rolling-average period begins on the compliance date specified in §63.7495.

(1) For each calendar month, you must use equation 3 of this section to calculate the 12-month rolling average weighted emission limit using the actual heat capacity for each existing large solid fuel boiler participating in the emissions averaging option.

$$AveWeightedEmissions = \sum_{i=1}^{n} (Er \times Hb) \div \sum_{i=1}^{n} Hb \qquad \text{(Eq. 3)}$$

where:

AveWeighted Emissions	=	12-month rolling average weighted emission level for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.
Er	=	Emission rate, calculated during the most recent compliance test,(as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in §63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.
Hb	=	The average heat input for each calendar month of boiler, i, in units of million Btu
n	=	Number of large solid fuel boilers participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input, you can use equation 4 of this section as an alternative to using equation 3 of this section to calculate the 12-month rolling average weighted emission limit using the actual steam generation from the large solid fuel boilers participating in the emissions averaging option.

$$AveWeightedEmissions = \sum_{i=1}^{n} (Er \times Sa \times Cf) \div \sum_{i=1}^{n} Sa \times Cf \qquad \text{(Eq. 4)}$$

where:

AveWeighted Emissions	=	12-month rolling average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.
Er	=	Emission rate, calculated during the most recent compliance test(as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in §63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.
Sa	=	Actual steam generation for each calender month by boiler, i, in units of pounds.
Cf	=	Conversion factor, as calculated during the most recent compliance test,in units of million Btu of heat input per pounds of steam generated.

(g) You must develop and submit an implementation plan for emission averaging to the applicable regulatory authority for review and approval according to the following procedures and requirements in paragraphs (f)(1) through (4).

(1) You must submit the implementation plan no later than 180 days before the date that the facility intends to demonstrate compliance using the emission averaging option.

(2) You must include the information contained in paragraphs (2)(i) through (vii) of this section in your implementation plan for all emission sources included in an emissions average:

(i) The identification of all existing large solid fuel boilers in the averaging group, including for each either the applicable HAP emission level or the control technology installed on;

(ii) The process parameter (heat input or steam generated) that will be monitored for each averaging group of large solid fuel boilers;

(iii) The specific control technology or pollution prevention measure to be used for each emission source in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple sources, the owner or operator must identify each source;

(iv) The test plan for the measurement of particulate matter (or TSM), HCl, or mercury emissions in accordance with the requirements in §63.7520;

(v) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(vi) If you request to monitor an alternative operating parameter pursuant to §63.7525, you must also include:

(A) A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

(B) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and record keeping requirements; and a demonstration, to the satisfaction of the applicable regulatory authority, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and

(vii) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

(3) Upon receipt, the regulatory authority shall review and approve or disapprove the plan according to the following criteria:

(i) Whether the content of the plan includes all of the information specified in paragraph (f)(2) of this section; and

(ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

(4) The applicable regulatory authority shall not approve an emission averaging implementation plan containing any of the following provisions:

(i) Any averaging between emissions of differing pollutants or between differing sources; or

(ii) The inclusion of any emission source other than an existing large solid fuel boiler.

p. <u>§63.7525 What are my monitoring, installation, operation, and maintenance requirements?</u>

(a) If you have an applicable work practice standard for carbon monoxide, and your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, you must install, operate, and maintain a continuous emission monitoring system (CEMS) for carbon monoxide according to the procedures in paragraphs (a)(1) through (6) of this section by the compliance date specified in §63.7495.

(1) Each CEMS must be installed, operated, and maintained according to Performance Specification (PS) 4A of 40 CFR part 60, appendix B, and according to the site-specific monitoring plan developed according to §63.7505(d).

(2) You must conduct a performance evaluation of each CEMS according to the requirements in §63.8 and according to PS 4A of 40 CFR part 60, appendix B.

(3) Each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(4) The CEMS data must be reduced as specified in §63.8(g)(2).

(5) You must calculate and record a 30-day rolling average emission rate on a daily basis. A new 30-day rolling average emission rate is calculated as the average of all of the hourly CO emission data for the preceding 30 operating days.

(6) For purposes of calculating data averages, you must not use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities, or when your boiler or process heater is operating at less than 50 percent of its rated capacity. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out of control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(b) If you have an applicable opacity operating limit, you must install, operate, certify and maintain each continuous opacity monitoring system (COMS) according to the procedures in paragraphs (b)(1) through (7) of this section by the compliance date specified in §63.7495.

(1) Each COMS must be installed, operated, and maintained according to PS 1 of 40 CFR part 60, appendix B.

(2) You must conduct a performance evaluation of each COMS according to the requirements in §63.8 and according to PS 1 of 40 CFR part 60, appendix B.

(3) As specified in §63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) The COMS data must be reduced as specified in §63.8(g)(2).

(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in §63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of §63.8(e). Identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit.

(7) You must determine and record all the 6-minute averages (and 1-hour block averages as applicable) collected for periods during which the COMS is not out of control.

(c) If you have an operating limit that requires the use of a CMS, you must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in paragraphs (c)(1) through (5) of this section by the compliance date specified in §63.7495.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.

(2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(4) Determine the 3-hour block average of all recorded readings, except as provided in paragraph (c)(3) of this section.

(5) Record the results of each inspection, calibration, and validation check.

(d) If you have an operating limit that requires the use of a flow measurement device, you must meet the requirements in paragraphs (c) and (d)(1) through (4) of this section.

(1) Locate the flow sensor and other necessary equipment in a position that provides a representative flow.

(2) Use a flow sensor with a measurement sensitivity of 2 percent of the flow rate.

(3) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4) Conduct a flow sensor calibration check at least semiannually.

(e) If you have an operating limit that requires the use of a pressure measurement device, you must meet the requirements in paragraphs (c) and (e)(1) through (6) of this section.

(1) Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure.

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(3) Use a gauge with a minimum tolerance of 1.27 centimeters of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(4) Check pressure tap pluggage daily.

(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(f) If you have an operating limit that requires the use of a pH measurement device, you must meet the requirements in paragraphs (c) and (f)(1) through (3) of this section.

(1) Locate the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Check the pH meter's calibration on at least two points every 8 hours of process operation.

(g) If you have an operating limit that requires the use of equipment to monitor voltage and secondary current (or total power input) of an electrostatic precipitator (ESP), you must use voltage and secondary current monitoring equipment to measure voltage and secondary current to the ESP.

(h) If you have an operating limit that requires the use of equipment to monitor sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (c) and (h)(1) through (3) of this section.

(1) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.

(2) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

(3) At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.

(i) If you elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate a bag leak detection system as specified in paragraphs (i)(1) through (8) of this section.

(1) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA-454/R-98-015, September 1997.

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

(5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(7) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.

(8) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

q. <u>§63.7530 How do I demonstrate initial compliance with the emission limits and work practice standards?</u>

(a) You must demonstrate initial compliance with each emission limit and work practice standard that applies to you by either conducting initial performance tests and establishing operating limits, as applicable, according to §63.7520, paragraph (c) of this section, and Tables 5, 7 and 8 to this subpart OR conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to §63.7521, paragraph (d) of this section, and Tables 6 and 8 to this subpart.

(b) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil must demonstrate compliance according to §63.7506(a).

(c) If you demonstrate compliance through performance testing, you must establish each site-specific operating limit in Tables 2 through 4 to this subpart that applies to you according to the requirements in §63.7520, Table 7 to this subpart, and paragraph (c)(4) of this section, as applicable. You must also conduct fuel analyses according to §63.7521 and establish maximum fuel pollutant input levels according to paragraphs (c)(1) through (3) of this section, as applicable.

(1) You must establish the maximum chlorine fuel input (Cl_{input}) during the initial performance testing according to the procedures in paragraphs (c)(1)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of chlorine.

(ii) During the performance testing for HCl, you must determine the fraction of the total heat input for each fuel type burned (Q_i) based on the fuel mixture that has the highest content of chlorine, and the average chlorine concentration of each fuel type burned $©_i$).

(iii) You must establish a maximum chlorine input level using Equation 5 of this section.

$$Cl_{input} = \sum_{i=1}^{n} \left[(C_i)(Q_i)\right] \qquad \text{(Eq. 5)}$$

where:

Cl_{input} = Maximum amount of chlorine entering the boiler or process heater through fuels burned in units of pounds per million Btu.

C_i	=	Arithmetic average concentration of chlorine in fuel type, i, analyzed according to §63.7521, in units of pounds per million Btu
Q_i	=	Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of "1" for Qi.
n	=	Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

(2) If you choose to comply with the alternative TSM emission limit instead of the particulate matter emission limit, you must establish the maximum TSM fuel input level (TSM_{input}) during the initial performance testing according to the procedures in paragraphs (c)(2)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of TSM.

(ii) During the performance testing for TSM, you must determine the fraction of total heat input from each fuel burned (Qi) based on the fuel mixture that has the highest content of total selected metals, and the average TSM concentration of each fuel type burned (Mi).

(iii) You must establish a baseline TSM input level using Equation 6 of this section.

$$TSM_{input} = \sum_{i=1}^{n} \left[(M_i)(Q_i) \right] \qquad \text{(Eq. 6)}$$

where:

TSM_{input}	=	Maximum amount of TSM entering the boiler or process heater through fuels burned in units of pounds per million Btu;
M_i	=	Arithmetic average concentration of TSM in fuel type, i, analyzed according to §63.7521, in units of pound per million Btu;
Q_i	=	Fraction of total heat input from based fuel type, i, based on the fuel mixture that has the highest content of TSM. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of "1" for Q_i;
n	=	Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(3) You must establish the maximum mercury fuel input level ($Mercury_{input}$) during the initial performance testing using the procedures in paragraphs (c)(3)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of mercury.

(ii) During the compliance demonstration for mercury, you must determine the fraction of total heat input for each fuel burned (Q_i) based on the fuel mixture that has the highest content of mercury, and the average mercury concentration of each fuel type burned (HG_i).

(iii) You must establish a maximum mercury input level using Equation 7 of this section.

$$Mercury_{input} = \sum_{i=1}^{n} \left[(HG_i)(Q_i) \right] \qquad \text{(Eq. 7)}$$

where:

$Mercury_{input}$	=	Maximum amount of mercury entering the boiler or process heater through fuels burned in units of pounds per million Btu;
HG_i	=	Arithmetic average concentration of mercury in fuel type, i, analyzed according to §63.7521, in units of pound per million Btu;
Q_i	=	Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of "1" for Q_i;
n	=	Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of mercury.

(4) You must establish parameter operating limits according to paragraphs (c)(4)(i) through (iv) of this section.

(i) For a wet scrubber, you must establish the minimum scrubber effluent pH, liquid flowrate, and pressure drop as defined in §63.7575, as your operating limits during the three-run performance test. If you use a wet scrubber and you conduct separate performance tests for particulate matter, HCl, and mercury emissions, you must establish one set of minimum scrubber effluent pH, liquid flowrate, and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flowrate and pressure drop operating limits at the highest minimum values established during the performance tests.

(ii) For an electrostatic precipitator, you must establish the minimum voltage and secondary current (or total power input), as defined in §63.7575, as your operating limits during the three-run performance test.

(iii) For a dry scrubber, you must establish the minimum sorbent injection rate, as defined in §63.7575, as your operating limit during the three-run performance test.

(iv) The operating limit for boilers or process heaters with fabric filters that choose to demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in §63.7525, and that each fabric filter must be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period.

(d) If you elect to demonstrate compliance with an applicable emission limit through fuel analysis, you must conduct fuel analyses according to §63.7521 and follow the procedures in paragraphs (d)(1) through (5) of this section.

(1) If you burn more than one fuel type, you must determine the fuel mixture you could burn in your boiler or process heater that would result in the maximum emission rates of the pollutants that you elect to demonstrate compliance through fuel analysis.

(2) You must determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided z-statistic test described in Equation 8 of this section.

$$P_{90} = \text{mean} + (SD * t) \qquad \text{(Eq. 8)}$$

where:

P_{90} = 90th percentile confidence level pollutant concentration, in pounds per million Btu;

mean = Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to §63.7521, in units of pounds per million Btu;

SD = Standard deviation of the pollutant concentration in the fuel samples analyzed according to §63.7521, in units of pounds per million Btu;

t = t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table.

(3) To demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate that you calculate for your boiler or process heater using Equation 9 of this section must be less than the applicable emission limit for HCl.

$$HCl = \sum_{i=1}^{n} \left[(C_{i90})(Q_i)(1.028) \right] \qquad \text{(Eq. 9)}$$

where:

HCl	=	HCl emission rate from the boiler or process heater in units of pounds per million Btu;
C_{i90}	=	90th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation 8 of this section;
Q_i	=	Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Q_i;
n	=	Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine;
1.028	=	Molecular weight ratio of HCl to chlorine.

(4) To demonstrate compliance with the applicable emission limit for TSM, the TSM emission rate that you calculate for your boiler or process heater using Equation 10 of this section must be less than the applicable emission limit for TSM.

$$TSM = \sum_{i=1}^{n} \left[(M_{i90})(Q_i) \right] \qquad \text{(Eq. 10)}$$

where:

TSM	=	TSM emission rate from the boiler or process heater in units of pounds per million Btu;
M_{i90}	=	90th percentile confidence level concentration of TSM in fuel, i, in units of pound per million Btu as calculated according to Equation 8 of this section;
Qi	=	Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of total selected metals. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Q_i;
n	=	Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(5) To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that you calculate for your boiler or process heater using Equation 11 of this section must be less than the applicable emission limit for mercury.

$$\text{Mercury} = \sum_{i=1}^{n} \left[(HG_{i90})(Q_i)\right] \qquad \text{(Eq. 11)}$$

where:

Mercury	=	Mercury emission rate from the boiler or process heater in units of pounds per million Btu;
HG_{i90}	=	90th percentile confidence level concentration of mercury in fuel, i, in units of pound per million Btu as calculated according to Equation 8 of this section;
Qi	=	Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Q_i;
n	=	Number of different fuel types burned in your boiler or process heater for the mixture that has the highest mercury content.

(e) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.7545(e).

Continuous Compliance Requirements

r. <u>§63.7535 How do I monitor and collect data to demonstrate continuous compliance?</u>

(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by §63.7505(d).

(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, or required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must use all the data collected during all other periods in assessing the

operation of the control device and associated control system. Boilers and process heaters that have an applicable carbon monoxide work practice standard and are required to install and operate a CEMS, may not use data recorded during periods when the boiler or process heater is operating at less than 50 percent of its rated capacity.

s. <u>§63.7540 How do I demonstrate continuous compliance with the emission limits and work practice standards?</u>

(a) You must demonstrate continuous compliance with each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (10) of this section.

(1) Following the date on which the initial performance test is completed or is required to be completed under §§63.7 and 63.7510, whichever date comes first, you must not operate above any of the applicable maximum operating limits or below any of the applicable minimum operating limits listed in Tables 2 through 4 to this subpart at all times except during periods of startup, shutdown and malfunction. Operating limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits.

(2) You must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would either result in lower emissions of TSM, HCl, and mercury, than the applicable emission limit for each pollutant (if you demonstrate compliance through fuel analysis), or result in lower fuel input of TSM, chlorine, and mercury than the maximum values calculated during the last performance tests (if you demonstrate compliance through performance testing).

(3) If you demonstrate compliance with an applicable HCl emission limit through fuel analysis and you plan to burn a new type of fuel, you must recalculate the HCl emission rate using Equation 5 of §63.7530 according to paragraphs (a)(3)(i) through (iii) of this section.

(i) You must determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to §63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of chlorine.

(iii) Recalculate the HCl emission rate from your boiler or process heater under these new conditions using Equation 5 of §63.7530. The recalculated HCl emission rate must be less than the applicable emission limit.

(4) If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of fuel type or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 1 of §63.7530. If the results of recalculating the maximum chlorine input using Equation 1 of §63.7530 are higher than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in §63.7530(c).

(5) If you demonstrate compliance with an applicable TSM emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the TSM emission rate using Equation 6 of §63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section.

(i) You must determine the TSM concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to §63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of TSM.

(iii) Recalculate the TSM emission rate from your boiler or process heater under these new conditions using Equation 6 of §63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.

(6) If you demonstrate compliance with an applicable TSM emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum TSM input using Equation 2 of §63.7530. If the results of recalculating the maximum total selected metals input using Equation 2 of §63.7530 are higher than the maximum TSM input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the TSM emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in §63.7530(c).

(7) If you demonstrate compliance with an applicable mercury emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the mercury emission rate using Equation 7 of §63.7530 according to the procedures specified in paragraphs (a)(7)(i) through (iii) of this section.

(i) You must determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to §63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of mercury.

(iii) Recalculate the mercury emission rate from your boiler or process heater under these new conditions using Equation 7 of §63.7530. The recalculated mercury emission rate must be less than the applicable emission limit.

(8) If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum mercury input using Equation 3 of §63.7530. If the results of recalculating the maximum mercury input using Equation 3 of §63.7530 are higher than the maximum mercury input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in §63.7530(c).

(9) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions according to your SSMP, and operate and maintain the fabric filter system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. You must also keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the alarm sounds. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.

(10) If you have an applicable work practice standard for carbon monoxide, and you are required to install a CEMS according to §63.7525(a), then you must meet the requirements in paragraphs (a)(10)(i) through (iii) of this section.

(i) You must continuously monitor carbon monoxide according to §§63.7525(a) and 63.7535.

(ii) Maintain a carbon monoxide emission level below your applicable carbon monoxide work practice standard in Table 1 to this subpart at all times except during periods of startup,

shutdown, malfunction, and when your boiler or process heater is operating at less than 50 percent of rated capacity.

(iii) Keep records of carbon monoxide levels according to §63.7555(b).

(b) You must report each instance in which you did not meet each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that apply to you. You must also report each instance during a startup, shutdown, or malfunction when you did not meet each applicable emission limit, operating limit, and work practice standard. These instances are deviations from the emission limits and work practice standards in this subpart. These deviations must be reported according to the requirements in §63.7550.

(c) During periods of startup, shutdown, and malfunction, you must operate in accordance with the SSMP as required in §63.7505(e).

(d) Consistent with §§63.6(e)and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the EPA Administrator's satisfaction that you were operating in accordance with your SSMP. The EPA Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).

t. <u>§63.7541 How do I demonstrate continuous compliance under the emission averaging provision?</u>

(a) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (4) of this section.

(1) For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing large solid fuel boilers participating in the emissions averaging option as determined in §63.7522(f) and (g);

(2) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a dry control system, maintain opacity at or below the applicable limit;

(3) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a wet scrubber, maintain the 3-hour average parameter values at or below the operating limits established during the most recent performance test; and

(4) For each existing solid fuel boiler participating in the emissions averaging option that has an approved alternative operating plan, maintain the 3-hour average parameter values at or below the operating limits established in the most recent performance test.

(b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (4) of this section, except during periods of startup, shutdown, and malfunction, is a deviation.

Notification, Reports, and Records

u. <u>§63.7545 What notifications must I submit and when?</u>

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to you by the dates specified.

(b) As specified in §63.9(b)(2), if you startup your affected source before November 12, 2004, you must submit an Initial Notification not later than 120 days after November 12, 2004. The Initial Notification must include the information required in paragraphs (b)(1) and (2) of this section, as applicable.

(1) If your affected source has an annual capacity factor of greater than 10 percent, your Initial Notification must include the information required by §63.9(b)(2).

(2) If your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories (the limited use solid fuel subcategory, the limited use liquid fuel subcategory, or the limited use gaseous fuel subcategory), your Initial Notification must include the information required by §63.9(b)(2) and also a signed statement indicating your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent.

(c) As specified in §63.9(b)(3), if you startup your new or reconstructed affected source on or after November 12, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart. The Initial Notification must include the information required in paragraphs (c)(1) and (2) of this section, as applicable.

(1) If your affected source has an annual capacity factor of greater than 10 percent, your Initial Notification must include the information required by §63.9(b).

(2) If your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories, your

Initial Notification must include the information required by §63.9(b) and a signed statement indicating your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent.

(d) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin as required in §63.7(b)(1).

(e) If you are required to conduct an initial compliance demonstration as specified in §63.7530(a), you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii). For each initial compliance demonstration, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to §63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(l) through (9), as applicable.

(1) A description of the affected source(s) including identification of which subcategory the source is in, the capacity of the source, a description of the add-on controls used on the source description of the fuel(s) burned, and justification for the fuel(s) burned during the performance test.

(2) Summary of the results of all performance tests, fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits.

(3) Identification of whether you are complying with the particulate matter emission limit or the alternative total selected metals emission limit.

(4) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing or fuel analysis.

(5) Identification of whether you plan to demonstrate compliance by emissions averaging.

(6) A signed certification that you have met all applicable emission limits and work practice standards.

(7) A summary of the carbon monoxide emissions monitoring data and the maximum carbon monoxide emission levels recorded during the performance test to show that you have met any applicable work practice standard in Table 1 to this subpart.

(8) If your new or reconstructed boiler or process heater is in one of the liquid fuel subcategories and burns only liquid fossil fuels other than residual oil either alone or in combination with gaseous

fuels, you must submit a signed statement certifying this in your Notification of Compliance Status report.

(9) If you had a deviation from any emission limit or work practice standard, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.

v. <u>§63.7550 What reports must I submit and when?</u>

(a) You must submit each report in Table 9 to this subpart that applies to you.

(b) Unless the EPA Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in §63.7495.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.7495.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information required in paragraphs (c)(1) through (11) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.

(5) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.

(6) A signed statement indicating that you burned no new types of fuel. Or, if you did burn a new type of fuel, you must submit the calculation of chlorine input, using Equation 1 of §63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 5 of §63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of TSM input, using Equation 2 of §63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate using Equation 6 of §63.7530 that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of mercury input, using Equation 3 of §63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 7 of §63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).

(7) If you wish to burn a new type of fuel and you can not demonstrate compliance with the maximum chlorine input operating limit using Equation 1 of §63.7530, the maximum TSM input operating limit using Equation 2 of §63.7530, or the maximum mercury input operating limit using Equation 3 of §63.7530, you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.

(8) The hours of operation for each boiler and process heater that is subject to an emission limit for each calendar month within the semiannual reporting period. This requirement applies only to limited use boilers and process heaters.

(9) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in §63.10(d)(5)(i).

(10) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, and there are no deviations from the requirements for work practice standards in this subpart, a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(11) If there were no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out of control during the reporting period.

(d) For each deviation from an emission limit or operating limit in this subpart and for each deviation from the requirements for work practice standards in this subpart that occurs at an affected source where you are not using a CMSs to comply with that emission limit, operating limit, or work practice standard, the compliance report must contain the information in paragraphs (c)(1) through (10) of this section and the information required in paragraphs (d)(1) through (4) of this section. This includes periods of startup, shutdown, and malfunction.

(1) The total operating time of each affected source during the reporting period.

(2) A description of the deviation and which emission limit, operating limit, or work practice standard from which you deviated.

(3) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

(4) A copy of the test report if the annual performance test showed a deviation from the emission limit for particulate matter or the alternative TSM limit, a deviation from the HCl emission limit, or a deviation from the mercury emission limit.

(e) For each deviation from an emission limitation and operating limit or work practice standard in this subpart occurring at an affected source where you are using a CMS to comply with that emission limit, operating limit, or work practice standard, you must include the information in paragraphs (c)(1) through (10) of this section and the information required in paragraphs (e)(1)

through (12) of this section. This includes periods of startup, shutdown, and malfunction and any deviations from your site-specific monitoring plan as required in §63.7505(d).

(1) The date and time that each malfunction started and stopped and description of the nature of the deviation (i.e., what you deviated from).

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out of control, including the information in §63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMSs downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

(8) An identification of each parameter that was monitored at the affected source for which there was a deviation, including opacity, carbon monoxide, and operating parameters for wet scrubbers and other control devices.

(9) A brief description of the source for which there was a deviation.

(10) A brief description of each CMS for which there was a deviation.

(11) The date of the latest CMS certification or audit for the system for which there was a deviation.

(12) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you operate a new gaseous fuel unit that is subject to the work practice standard specified in Table 1 to this subpart, and you intend to use a fuel other than natural gas or equivalent to fire the affected unit, you must submit a notification of alternative fuel use within 48 hours of the declaration of a period of natural gas curtailment or supply interruption, as defined in §63.7575. The notification must include the information specified in paragraphs (g)(1) through (5) of this section.

(1) Company name and address.

(2) Identification of the affected unit.

(3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.

(4) Type of alternative fuel that you intend to use.

(5) Dates when the alternative fuel use is expected to begin and end.

w. <u>§63.7555 What records must I keep?</u>

(a) You must keep records according to paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv).

(2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests, fuel analyses, or other compliance demonstrations, performance evaluations, and opacity observations as required in §63.10(b)(2)(viii).

(b) For each CEMS, CPMS, and COMS, you must keep records according to paragraphs (b)(1) through (5) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in §63.6(h)(7)(i) and (ii).

(3) Previous (i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(4) Request for alternatives to relative accuracy test for CEMS as required in §63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated averages for applicable operating limits such as opacity, pressure drop, carbon monoxide, and pH to show continuous compliance with each emission limit, operating limit, and work practice standard that applies to you.

(d) For each boiler or process heater subject to an emission limit, you must also keep the records in paragraphs (d)(1) through (5) of this section.

(1) You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.

(2) You must keep records of monthly hours of operation by each boiler or process heater. This requirement applies only to limited-use boilers and process heaters.

(3) A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 1 of §63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 5 of §63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should

include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.

(4) A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 2 of §63.7530, that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 6 of §63.7530, that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate TSM fuel input, or TSM emission rates, for each boiler and process heater.

(5) A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 3 of §63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 7 of §63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.

(e) If your boiler or process heater is subject to an emission limit or work practice standard in Table 1 to this subpart and has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories, you must keep the records in paragraphs (e)(1) and (2) of this section.

(1) A copy of the federally enforceable permit that limits the annual capacity factor of the source to less than or equal to 10 percent.

(2) Fuel use records for the days the boiler or process heater was operating.

x. <u>§63.7560 In what form and how long must I keep my records?</u>

(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off site for the remaining 3 years.

Other Requirements and Information

y. <u>§63.7565 What parts of the General Provisions apply to me?</u>

Table 10 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

z. <u>§63.7570 Who implements and enforces this subpart?</u>

(a) This subpart can be implemented and enforced by U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities listed in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency, however, the U.S. EPA retains oversight of this subpart and can take enforcement actions, as appropriate.

(1) Approval of alternatives to the non-opacity emission limits and work practice standards in §63.7500(a) through (c) under §63.6(g).

(2) Approval of alternative opacity emission limits in §63.7500(a) under §63.6(h)(9).

(3) Approval of major change to test methods in Table 5 to this subpart under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(4) Approval of major change to monitoring under §63.8(f) and as defined in §63.90.

(5) Approval of major change to record keeping and reporting under §63.10(f) and as defined in §63.90.

aa. <u>§63.7575 What definitions apply to this subpart?</u>

Terms used in this subpart are defined in the CAA, in §63.2 (the General Provisions), and in this section as follows:

<u>Annual capacity factor</u> means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year, and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.

<u>Bag leak detection system</u> means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (i.e., baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

<u>Biomass fuel</u> means unadulterated wood as defined in this subpart, wood residue, and wood products (e.g., trees, tree stumps, tree limbs, bark, lumber, sawdust, sanderdust, chips, scraps, slabs, millings, and shavings); animal litter; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff (e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds.

<u>Blast furnace gas fuel-fired boiler or process heater</u> means an industrial/commercial/institutional boiler or process heater that receives 90 percent or more of its total heat input (based on an annual average) from blast furnace gas.

<u>Boiler</u> means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Waste heat boilers are excluded from this definition.

<u>Coal</u> means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by the American Society for Testing and Materials in ASTM D388-99e1, "Standard Specification for Classification of Coals by Rank," coal refuse, and petroleum coke. Synthetic fuels derived from coal for the purpose of creating useful heat including but not limited to, solvent-refined coal, coal-oil mixtures, and coal-water mixtures, for the purposes of this subpart. Coal derived gases are excluded from this definition.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (6,000 Btu per pound) on a dry basis.

Commercial/institutional boiler means a boiler used in commercial establishments or institutional establishments such as medical centers, research centers, institutions of higher education, hotels, and laundries to provide electricity, steam, and/or hot water.

Construction/demolition material means waste building material that result from the construction or demolition operations on houses and commercial and industrial buildings.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless or whether or not such failure is permitted by this subpart.

A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards.

Distillate oil means fuel oils, including recycled oils, that comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D396-02a, "Standard Specifications for Fuel Oils."

Dry scrubber means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems in fluidized bed boilers and process heaters are included in this definition.

Electric utility steam generating unit means a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that

cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit.

Electrostatic precipitator means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper.

Fabric filter means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.

Federally enforceable means all limitations and conditions that are enforceable by the EPA Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Firetube boiler means a boiler in which hot gases of combustion pass through the tubes and water contacts the outside surfaces of the tubes.

Fuel type means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, subbituminous coal, lignite, anthracite, biomass, construction/demolition material, salt water laden wood, creosote treated wood, tires, residual oil. Individual fuel types received from different suppliers are not considered new fuel types except for construction/demolition material.

Fossil fuel means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such materials.

Gaseous fuel includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, and biogas. Blast furnace gas is exempted from this definition.

Heat input means heat derived from combustion of fuel in a boiler or process heater and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources such as gas turbines, internal combustion engines, kilns, etc.

Hot water heater means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous or liquid fuel and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which the heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210EF (99EC).

Industrial boiler means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.

Large gaseous fuel subcategory includes any watertube boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent.

Large liquid fuel subcategory includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent. Large gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

Large solid fuel subcategory includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent.

Liquid fossil fuel means petroleum, distillate oil, residual oil and any form of liquid fuel derived from such material.

Liquid fuel includes, but is not limited to, distillate oil, residual oil, waste oil, and process liquids.

Limited use gaseous fuel subcategory includes any watertube boiler or process heater that burns gaseous fuels not combined with any liquid or solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent.

Limited use liquid fuel subcategory includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent. Limited use gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

Limited use solid fuel subcategory includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated

capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent.

Minimum pressure drop means 90 percent of the lowest test-run average pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum scrubber effluent pH means 90 percent of the lowest test-run average effluent pH measured at the outlet of the wet scrubber according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable hydrogen chloride emission limit.

Minimum scrubber flow rate means 90 percent of the lowest test-run average flow rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum sorbent flow rate means 90 percent of the lowest test-run average sorbent (or activated carbon) flow rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

Minimum voltage or amperage means 90 percent of the lowest test-run average voltage or amperage to the electrostatic precipitator measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

Natural gas means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquid petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835-03a, "Standard Specification for Liquid Petroleum Gases."

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Particulate matter means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this subpart, or an alternative method.

Period of natural gas curtailment or supply interruption means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption.

Process heater means an enclosed device using controlled flame, that is not a boiler, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not directly come into contact with process materials. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves.

Residual oil means crude oil, and all fuel oil numbers 4, 5 and 6, as defined by the American Society for Testing and Materials in ASTM D396-02a, "Standard Specifications for Fuel Oils."

Responsible official means responsible official as defined in 40 CFR 70.2.

Small gaseous fuel subcategory includes any firetube boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment or gas supply emergencies, and any boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, and has a rated capacity of less than or equal to 10 MMBtu per hour heat input.

Small liquid fuel subcategory includes any firetube boiler that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, and any boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, and has a rated capacity of less than or equal to 10 MMBtu per hour heat input. Small gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

Small solid fuel subcategory includes any firetube boiler that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, and any other boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels and has a rated capacity of less than or equal to 10 MMBtu per hour heat input.

Solid fuel includes, but is not limited to, coal, wood, biomass, tires, plastics, and other nonfossil solid materials.

Temporary boiler means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another. A temporary boiler that remains at a location for more than 180 consecutive days is no longer considered to be a temporary boiler.

Any temporary boiler that replaces a temporary boiler at a location and is intended to perform the same or similar function will be included in calculating the consecutive time period.

Total selected metals means the combination of the following metallic HAP: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.

Unadulterated wood means wood or wood products that have not been painted, pigment-stained, or pressure treated with compounds such as chromate copper arsenate, pentachlorophenol, and creosote. Plywood, particle board, oriented strand board, and other types of wood products bound by glues and resins are included in this definition.

Watertube boiler means a boiler in which water passes through the tubes and hot gases of combustion pass over the outside surfaces of the tubes.

Waste heat boiler means a device that recovers normally unused energy and converts it to usable heat. Waste heat boilers incorporating duct or supplemental burners that are designed to supply 50 percent or more of the total rated heat input capacity of the waste heat boiler are not considered waste heat boilers, but are considered boilers. Waste heat boilers are also referred to as heat recovery steam generators.

Wet scrubber means any add-on air pollution control device that mixes an aqueous stream or slurry with the exhaust gases from a boiler or process heater to control emissions of particulate matter and/or to absorb and neutralize acid gases, such as hydrogen chloride.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

Tables to Subpart DDDDD of Part 63

Table 1 to Subpart DDDDD of Part 63 — Emission Limits and Work Practice Standards

As stated in §63.7500, you must comply with the following applicable emission limits:

If your boiler or process heater is in this subcategory...	For the following pollutants...	You must meet the following emission limits and work practice standards...
1. New or reconstructed large solid fuel	a. Particulate Matter (OR	0.025 lb per MMBtu of heat input; or

	Total Selected Metals)	(0.0003 lb per MMBtu/hr of heat input)
	b. Hydrogen Chloride	0.02 lb per MMBtu of heat input
	c. Mercury	0.000003 lb per MMBtu of heat input
	d. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 7 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr)
2. New or reconstructed limited use solid fuel	a. Particulate Matter (OR Total Selected Metals)	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu/hr of heat input)
	b. Hydrogen Chloride	0.02 lb per MMBtu of heat input
	c. Mercury	0.000003 lb per MMBtu of heat input
	d. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 7 percent oxygen (3-run average)
3. New or reconstructed small solid fuel	a. Particulate Matter (OR Total Selected Metals)	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu/hr of heat input)
	b. Hydrogen Chloride	0.02 lb per MMBtu of heat input
	c. Mercury	0.000003 lb per MMBtu of heat input
4. New or reconstructed large liquid fuel	a. Particulate Matter	0.03 lb per MMBtu of heat input
	b. Hydrogen Chloride	0.0005 lb per MMBtu of heat input
	c. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for

		units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr)
5. New or reconstructed limited use liquid fuel	a. Particulate Matter b. Hydrogen Chloride c. Carbon Monoxide	0.03 lb per MMBtu of heat input 0.0009 lb per MMBtu of heat input 400 ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average)
6. New or reconstructed small liquid fuel	a. Particulate Matter b. Hydrogen Chloride	0.03 lb per MMBtu of heat input 0.0009 lb per MMBtu of heat input
7. New or reconstructed large gaseous fuel	Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr)
8. New or reconstructed limited use gaseous fuel	Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average)
9. Existing large solid fuel	a. Particulate Matter (OR Total Selected Metals) b. Hydrogen Chloride c. Mercury	0.07 lb per MMBtu of heat input (0.001 lb per MMBtu/hr of heat input) 0.09 lb per MMBtu of heat input 0.000009 lb per MMBtu of heat input
10. Existing limited use solid fuel	Particulate Matter (OR Total Selected Metals)	0.21 lb per MMBtu of heat input (0.004 lb per MMBtu/hr of heat input)

Table 2 to Subpart DDDDD of Part 63 — Operating Limits for Boilers and Process Heaters with Particulate Matter Emission Limits

As stated in §63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable particulate matter emission limits using...	You must meet these operating limits...
1. Wet scrubber control	a. Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for particulate matter.
2. Fabric filter control	a. Install and operate a bag leak detection system according to §63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during each 6-month period; OR b. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
3. Electrostatic precipitator control	a. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).; OR b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated

	compliance with the applicable emission limit for particulate matter.
4. Any other control type	This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).

Table 3 to Subpart DDDDD of Part 63 — Operating Limits for Boilers and Process Heaters With Mercury Emission Limits and Boilers and Process Heaters That Choose to Comply With the Alternative Total Selected Metals Emission Limits

As stated in §63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable mercury and/or total selected metals emission limits using...	**You must meet these operating limits...**
1. Wet scrubber control	Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limits for mercury and/or total selected metals.

2. Fabric filter control	a. Install and operate a bag leak detection system according to §63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period; OR b. This option is for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
3. Electrostatic precipitator control	a. This option is for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average); OR b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limits for mercury and/or total selected metals.
4. Dry scrubber or carbon injection control	Maintain the minimum sorbent or carbon injection rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for mercury.

5. Any other control type	This option is only for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
6. Fuel analysis	Maintain the fuel type or fuel mixture such that the mercury and/or total selected metals emission rates calculated according to §63.7530(d)(4) and/or (5) is less than the applicable emission limits for mercury and/or total selected metals.

Table 4 to Subpart DDDDD of Part 63 — Operating Limits for Boilers and Process Heaters with Hydrogen Chloride Emission Limits

As stated in §63.7500, you must comply with the following applicable operating limits:

If you demonstrate compliance with applicable hydrogen chloride emission limits using...	**You must meet these operating limits...**
1. Wet scrubber control	Maintain the minimum scrubber effluent pH, pressure drop, and liquid flow-rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for hydrogen chloride.
2. Dry scrubber control	Maintain the minimum sorbent injection rate at or above the operating levels established during the performance test according to §63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for hydrogen chloride.
3. Fuel analysis	Maintain the fuel type or fuel mixture such that the hydrogen chloride emission rate calculated according to §63.7530(d)(3) is less than the applicable emission limit for hydrogen chloride.

Table 5 to Subpart DDDDD of Part 63 — Performance Testing Requirements

As stated in §63.7520, you must comply with the following requirements for performance test for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant...	**You must...**	**Using...**
1. Particulate Matter	a. Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter or ASME PTC 19, Part 10(1981).
	d. Measure the moisture content of the stack gas	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the particulate matter emission concentration	Method 5 or 17 (positive pressure fabric filters must use Method 5D) in appendix A to part 60 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
2. Total selected metals	a. Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.

	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter or ASME PTC 19, Part 10(1981).
	d. Measure the moisture content of the stack gas	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the total selected metals emission concentration	Method 29 in appendix A to part 60 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.

3. Hydrogen chloride	a. Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter or ASME PTC 19, Part 10(1981).
	d. Measure the moisture content of the stack gas	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the hydrogen chloride emission concentration	Method 26 or 26A in appendix A to part 60 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.

4. Mercury	a. Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter or ASME PTC 19, Part 10(1981).
	d. Measure the moisture content of the stack gas	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the mercury emission concentration	Method 29 in appendix A to part 60 of this chapter or Method 101A in appendix B to part 61 of this chapter or ASTM Method D6784-02.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.

5. Carbon Monoxide	a. Select the sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter or ASME PTC 19, Part 10(1981).
	d. Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the carbon monoxide emission concentration.	Method 10, 10A, or 10 B in appendix A to part 60 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.

Table 6 to Subpart DDDDD of Part 63 — Fuel Analysis Requirements

As stated in §63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources:

To conduct a fuel analysis for the following pollutant...	**You must...**	**Using...**
1. Mercury	a. Collect fuel samples.	Procedure in §63.7521(c) or ASTM D2234M-03 (for coal) or ASTM D6323-98 (2003) (for biomass) or equivalent. Procedure in §63.7521(d) or

	b. Composite fuel samples.	equivalent.
	c. Prepare composited fuel samples.	SW-846-3050B (for solid samples) or SW-846-3020A (for liquid samples) or ASTM D2013-01 (for coal) or ASTM D5198-92 (2003) (for biomass) or equivalent.
	d. Determine heat content of the fuel type.	ASTM D5865-03a (for coal) or ASTM E711-87 (1996) (for biomass) or equivalent.
	e. Determine moisture content of the fuel type.	ASTM D3173-02 or ASTM E871-82 (1998) or equivalent.
	f. Measure mercury concentration in fuel sample.	ASTM D3684-01 (for coal) or SW-846-7471A (for solid samples) or SW-846 7470A (for liquid samples).
	g. Convert concentrations in into units of pounds of pollutant per MMBtu of heat content.	
2. Total selected metals	a. Collect fuel samples.	Procedure in §63.7521(c) or ASTM D2234M-03 (for coal) or ASTM D6323-98 (2003) (for biomass) or equivalent.

	b. Composite fuel samples. c. Prepare composited fuel samples d. Determine heat content of the fuel type. e. Determine moisture content of the fuel type. f. Measure total selected metals concentration in fuel sample. g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	Procedure in §63.7521(d) or equivalent. SW-846-3050B (for solid samples) or SW-846-3020A (for liquid samples) or ASTM D2013-01 (for coal) or ASTM D5198-92 (2003)(for biomass) or equivalent. ASTM D5865-03a (for coal) or ASTM E 711-87 (for biomass) or equivalent. ASTM D3173-02 or ASTM E871 or equivalent. SW-846-6010Bor ASTM D3683-94 (2000) (for coal) or ASTM E885-88 (1996) (for biomass).
3.Hydrogen chloride	a. Collect fuel samples. b. Composite fuel samples.	Procedure in §63.7521(c) or ASTM D2234M-03 (for coal) or ASTM D6323-98 (2003) (for biomass) or equivalent. Procedure in §63.7521(d) or equivalent. SW-846-3050B (for solid samples) or SW-846-3020A (for liquid samples) or ASTM D2013-01 (for coal) or ASTM

	c. Prepare composited fuel samples	D5198-92 (2003) (for biomass) or equivalent. ASTM D5865-03a (for coal) or ASTME 711-87 (1996) (for biomass) or equivalent. ASTM D3173-02 or ASTM E871-82 (1998) or equivalent.
	d. Determine heat content of the fuel type.	SW-846-9250 or ASTM E776-87 (1996) (for biomass) or equivalent.
	e. Determine moisture content of the fuel type.	
	f. Measure chlorine concentration in fuel sample.	
	g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	

Table 7 to Subpart DDDDD of Part 63 — Establishing Operating Limits

As stated in §63.7520, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for...	And your operating limits are based on...	You must...	Using...	According to the following requirements

1. Particulate matter, mercury, or total selected metals.	a. Wet scrubber operating parameters	i. Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to §63.7530(c)	(1) Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury, or total selected metals performance test.	(a) You must collect pressure drop and liquid flow-rate data every 15 minutes during the entire period of the performance tests; (b) Determine the average pressure drop and liquid flow-rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.
	b. Electrostatic precipitator operating parameters (option only for units with additional wet scrubber control)	i. Establish a site-specific minimum voltage and secondary current or total power input according to §63.7530(c)	(1) Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury, or total selected metals performance test.	(a) You must collect voltage and secondary current or total power input data every 15 minutes during the entire period of the performance tests; (b) Determine the average voltage and secondary current or total power input for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.
	c. A site-specific opacity limit (only for units that meet the criteria for having a site-specific opacity limit according to §63.7530(c)(6)(i)	i. Establish a site-specific maximum opacity operating limit according to §63.7530(c)	(1) Data from the continuous opacity monitoring system and the particulate matter, mercury, or total selected metals performance test.	(a) Collecting the opacity monitoring system data according to §63.7525(b) and §63.7535; and (b) Reducing the opacity monitoring data to 6-minute averages; and (c) Determine the average opacity for each individual test run in the three-run performance test by computing the average of all the 6-minute readings taken during each test run.

2. Hydrogen Chloride	a. Wet scrubber operating parameters	i. Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to §63.7530(c)	(1) Data from the pH, pressure drop, and liquid flow rate monitors and the hydrogen chloride performance test.	(a) You must collect pH, pressure drop, and liquid flow-rate data every 15 minutes during the entire period of the performance tests; (b) Determine the average pH, pressure drop, and liquid flow-rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.
	b. Dry scrubber operating parameters	i. Establish a site-specific minimum sorbent injection rate operating limit according to §63.7530(c)	(1) Data from the sorbent injection rate monitors and the hydrogen chloride performance test.	(a) You must collect sorbent injection rate data every 15 minutes during the entire period of the performance tests; (b) Determine the average sorbent injection rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.

Table 8 to Subpart DDDDD of Part 63 — Demonstrating Continuous Compliance

As stated in §63.7540, you must show continuous compliance with the emission limitations for affected sources according to the following:

If you must meet the following operating limits or work practice standards...	**You must demonstrate continuous compliance by...**

1. Opacity.	a. Collecting the opacity monitoring system data according to §§63.7525(b) and 63.7535; and b. Reducing the opacity monitoring data to 6-minute averages; and c. Maintaining opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent for existing sources; OR maintaining opacity to less than or equal to 10 percent (1-hour block average) for new sources.
2. Fabric Filter Bag Leak Detection Operation.	Installing and operating a bag leak detection system according to §63.7525 and operating the fabric filter such that the requirements in §63.7540(a)(9) are met.
3. Wet Scrubber Pressure Drop and Liquid Flow-rate.	a. Collecting the pressure drop and liquid flow rate monitoring system data according to §§63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to §63.7530 (c).
4. Wet Scrubber pH.	a. Collecting the pH monitoring system data according to §§63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average pH at or above the operating limit established during the performance test according to §63.7530(c).
5. Dry Scrubber Sorbent or Carbon Injection Rate.	a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average sorbent or carbon injection rate at or above the operating limit established during the performance test according to §63.7530(c).

6. Electrostatic Precipitator Secondary Current and Voltage or Total Power Input.	a. Collecting the secondary current and voltage or total power input monitoring system data for the electrostatic precipitator according to §§63.7525 and 63.7535; and b. educing the data to 3-hour block averages; and c. Maintaining the 3-hour average secondary current and voltage or total power input at or above the operating limits established during the performance test according to §63.7530(c).
7. Fuel Pollutant Content.	a. Only burning the fuel types and fuel mixtures used to demonstrate compliance with the applicable emission limit according to §63.7530(c) or (d) as applicable; and b. Keeping monthly records of fuel use according to §63.7540(a).

Table 9 to Subpart DDDDD of Part 63 — Reporting Requirements

As stated in §63.7550, you must comply with the following requirements for reports:

You must submit a(n)	The report must contain...	You must submit the report...
1. compliance report	a. information required in §63.7550(c)(1)through(11) AND b. if there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 8 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems,	semiannually according to the requirements in §63.7550(b).

	were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during the which the CMSs were out-of-control during the reporting period AND c. if you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in §63.7550(d). If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control, as specified in §63.8(c)(7), the report must contain the information in §63.7550(e) AND d. if you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i)	

2. an immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan	a. actions taken for the event AND b. The information in §63.10(d)(5)(ii)	i. by fax or telephone within 2 working days after starting actions inconsistent with the plan; and ii. by letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority.

Table 10 to Subpart DDDDD of Part 63 — Applicability of General Provisions to Subpart DDDDD

As stated in §63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief Description	Applicalbe
§63.1	Applicability	Initial Applicability Determination; Applicability After Standard Established; Permit Requirements; Extensions, Notifications	Yes.
§63.2	Definitions	Definitions for part 63 standards	Yes.
§63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§63.4	Prohibited Activities	Prohibited Activities; Compliance date; Circumvention, Severability	Yes.
§63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes.

§63.6(a)	Applicability	GP apply unless compliance extension AND GP apply to area sources that become major	Yes.
§63.6(b)(1)-(4)	Compliance Dates for New and Reconstructed sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for 112(f)	Yes.
§63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes.
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source	Yes.
§63.6(c)(1)-(2)	Compliance Dates for Existing Sources	Comply according to date in subpart, which must be no later than 3 years after effective date AND For 112(f) standards, comply within 90 days of effective date unless compliance extension	Yes.
§63.6(c)(3)-(4)	[Reserved]		
§63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major	Area sources that become major must comply with major source standards by date indicated in subpart or by equivalent time period (e.g.,example, 3 years)	Yes.
§63.6(d)	[Reserved]		
§63.6(e)(1)-(2)	Operation & Maintenance	Operate to minimize emissions at all times	Yes.

		AND Correct malfunctions as soon as practicable AND Operation and maintenance requirements independently enforceable information Administrator will use to determine if operation and maintenance requirements were met	
§63.6(e)(3)	Startup, Shutdown, and Malfunction Plan (SSMP)	Requirement for SSM and startup, shutdown, malfunction plan Content of SSMP	Yes.
§63.6(f)(1)	Compliance Except During SSM	Comply with emission standards at all times except during SSM	Yes.
§63.6(f)(2)-(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes.
§63.6(g)(1)-(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§63.6(h)(1)	Compliance with Opacity/VE Standards	Comply with opacity/VE emission limitations at all times except during SSM	Yes.
§63.6(h)(2)(i)	Determining Compliance with Opacity/Visible Emission (VE) Standards	If standard does not state test method, use Method 9 for opacity and Method 22 for VE	No.
§63.6(h)(2)(ii)	[Reserved]		
§63.6(h)(2)(iii)	Using Previous Tests to Demonstrate Compliance with Opacity/VE Standards	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart	Yes.
§63.6(h)(3)	[Reserved]		

§63.6(h)(4)	Notification of Opacity/VE Observation Date	Notify Administrator of anticipated date of observation	No.
§63.6(h)(5)(i), (iii)-(v)	Conducting Opacity/VE Observations	Dates and Schedule for conducting opacity/VE observations	No.
§63.6(h)(5)(ii)	Opacity Test Duration and Averaging Times	Must have at least 3 hours of observation with thirty, 6-minute averages	No.
§63.6(h)(6)	Records of Conditions During Opacity/VE observations	Keep records available and allow Administrator to inspect	No.
§63.6(h)(7)(i)	Report continuous opacity monitoring system Monitoring Data from Performance Test	Submit continuous opacity monitoring system data with other performance test data	Yes.
§63.6(h)(7)(ii)	Using continuous opacity monitoring system instead of Method 9	Can submit continuous opacity monitoring system data instead of Method 9 results even if subpart requires Method 9, but must notify Administrator before performance test	No.
§63.6(h)(7) (iii)	Averaging time for continuous opacity monitoring system during performance test	To determine compliance, must reduce continuous opacity monitoring system data to 6-minute averages	Yes.
§63.6(h)(7)(iv)	Continuous opacity monitoring system requirements	Demonstrate that continuous opacity monitoring system performance evaluations are conducted according to §§63.8(e), continuous opacity monitoring system are properly maintained and operated according to 63.8(c) and data quality as §63.8(d)	Yes.

§63.6(h)(7)(v)	Determining Compliance with Opacity/VE Standards	Continuous opacity monitoring system is probative but not conclusive evidence of compliance with opacity standard, even if Method 9 observation shows otherwise. Requirements for continuous opacity monitoring system to be probative evidence–proper maintenance, meeting PS 1, and data have not been altered	Yes.
§63.6(h)(8)	Determining Compliance with Opacity/VE Standards	Administrator will use all continuous opacity monitoring system, Method 9, and Method 22 results, as well as information about operation and maintenance to determine compliance	Yes.
§63.6(h)(9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard	Yes.
§63.6(i)(1)-(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes.
§63.6(j)	Presidential Compliance Exemption	President may exempt source category from requirement to comply with rule	Yes.
§63.7(a)(1)	Performance Test Dates	Dates for Conducting Initial Performance Testing and Other Compliance Demonstrations	Yes.
§63.7(a)(2)	Performance Test Dates	New source with initial startup date before effective date has 180 days after effective date to demonstrate compliance	Yes.
§63.7(a)(2)(ii-viii)	[Reserved]		
§63.7(a)(2)(ix)	Performance Test Dates	New source that commenced construction between proposal and promulgation dates, when promulgated standard is more stringent than proposed standard, has 180 days after effective date or 180 days after startup of source, whichever is later, to demonstrate compliance AND	Yes. No.

		If source initially demonstrates compliance with less stringent proposed standard, it has 3 years and 180 days after the effective date of the standard or 180 days after startup of source, whichever is later, to demonstrate compliance with promulgated standard	
§63.7(a)(3)	Section 114 Authority	Administrator may require a performance test under CAA Section 114 at any time	Yes.
§63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test	Yes.
§63.7(b)(2)	Notification of Rescheduling	If rescheduling a performance test is necessary, must notify Administrator 5 days before scheduled date of rescheduled date	Yes.
§63.7(c)	Quality Assurance/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with: Test plan approval procedures AND Performance audit requirements AND Internal and External QA procedures for testing	Yes.
§63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
§63.7(e)(1)	Conditions for Conducting Performance Tests	Performance tests must be conducted under representative conditions	No.
		AND	
		Cannot conduct performance tests during SSM.	Yes.

		AND	
		Not a deviation to exceed standard during SSM	Yes.
		AND	
		Upon request of Administrator, make available records necessary to determine conditions of performance tests	Yes.
§63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to rule and EPA test methods unless Administrator approves alternative	Yes.
§63.7(e)(3)	Test Run Duration	Must have three separate test runs AND Compliance is based on arithmetic mean of three runs AND Conditions when data from an additional test run can be used	Yes.
§63.7(e)(4)	Interaction with other sections of the Act.	Nothing in §63.7(e)(1) through (4) can abrogate the Administrator's authority to require testing under Section 114 of the Act.	Yes.
§63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an alternative test method	Yes.
§63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report AND Must submit performance test data 60 days after end of test with the	Yes.

		Notification of Compliance Status AND Keep data for 5 years	
§63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes.
§63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of part 60 apply	Yes.
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring with Flares	Unless your rule says otherwise, the requirements for flares in §63.11 apply	No.
§63.8(b)(1)(i)-(ii)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes.
§63.8(b)(1)(iii)	Monitoring	Flares not subject to this section unless otherwise specified in relevant standard	No.
§63.8(b)(2)-(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems AND Must install on each effluent before it is combined and before it is released to the atmosphere unless Administrator approves otherwise AND If more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup	Yes.

§63.8(c)(1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices	Yes.
§63.8(c)(1)(i)	Routine and Predictable SSM	Maintain and operate CMS according to §63.6(e)(1)	Yes.
§63.8(c)(1)(ii)	SSM not in SSMP	Must keep necessary parts available for routine repairs of CMSs	Yes.
§63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements	Must develop and implement an SSMP for CMSs	Yes.
§63.8(c)(2)-(3)	Monitoring System Installation	Must install to get representative emission and parameter measurements AND Must verify operational status before or at performance test	Yes.
§63.8(c)(4)	Continuous Monitoring System (CMS) Requirements	CMSs must be operating except during breakdown, out-of-control, repair, maintenance, and high-level calibration drifts	No.
§63.8(c)(4)(i)	Continuous Monitoring System (CMS) Requirements	Continuous opacity monitoring system must have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period	Yes.
§63.8(c)(4)(ii)	Continuous Monitoring System (CMS) Requirements	Continuous emissions monitoring system must have a minimum of one cycle of operation for each successive 15-minute period	No.
§63.8(c)(5)	Continuous Opacity Monitoring system (COMS) Requirements	Must do daily zero and high level calibrations	Yes.
§63.8(c)(6)	Continuous Monitoring System (CMS) Requirements	Must do daily zero and high level calibrations	No.

§63.8(c)(7)-(8)	Continuous monitoring systems Requirements	Out-of-control periods, including reporting	Yes.
§63.8(d)	Continuous monitoring systems Quality Control	Requirements for continuous monitoring systems quality control, including calibration, etc. AND Must keep quality control plan on record for the life of the affected source. Keep old versions for 5 years after revisions	Yes.
§63.8(e)	Continuous monitoring systems Performance Evaluation	Notification, performance evaluation test plan, reports	Yes.
§63.8(f)(1)-(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	Yes.
§63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for continuous emissions monitoring system	No.
§63.8(g)(1)-(4)	Data Reduction	Continuous opacity monitoring system 6-minute averages calculated over at least 36 evenly spaced data points AND Continuous emissions monitoring system 1-hour averages computed over at least 4 equally spaced data points	Yes.
§63.8(g)(5)	Data Reduction	Data that cannot be used in computing averages for continuous emissions monitoring system and continuous opacity monitoring system	No.
§63.9(a)	Notification Requirements	Applicability and State Delegation	Yes.

§63.9(b)(1)-(5)	Initial Notifications	Submit notification 120 days after effective date AND Notification of intent to construct/ reconstruct AND Notification of commencement of construct/reconstruct; Notification of startup AND Contents of each	Yes.
§63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed BACT/LAER	Yes.
§63.9(d)	Notification of Special Compliance Requirements for New Source	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes.
§63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.

§63.9(g)	Additional Notifications When Using Continuous Monitoring Systems	Notification of performance evaluation AND Notification using continuous opacity monitoring system data AND Notification that exceeded criterion for relative accuracy	Yes.
§63.9(h)(1)-(6)	Notification of Compliance Status	Contents AND Due 60 days after end of performance test or other compliance demonstration, When to submit to Federal vs. State authority	Yes.
§63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted	Yes.
§63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.

§63.10(a)	Record keeping/Reporting	Applies to all, unless compliance extension AND When to submit to Federal vs. State authority AND Procedures for owners of more than 1 source	Yes.
§63.10(b)(1)	Record keeping/Reporting	General Requirements AND Keep all records readily available AND Keep for 5 years	Yes.

§63.10(b)(2)(i)-(v)	Records related to Startup, Shutdown, and Malfunction	Occurrence of each of operation (process equipment) AND Occurrence of each malfunction of air pollution equipment AND Maintenance on air pollution control equipment AND Actions during startup, shutdown, and malfunction	Yes.
§63.10(b)(2)(vi) and (x-xi)	Continuous monitoring systems Records	Malfunctions, inoperative, out-of-control AND Calibration checks AND Adjustments, maintenance	Yes.

§63.10(b)(2)(vii)-(ix)	Records	Measurements to demonstrate compliance with emission limitations AND Performance test, performance evaluation, and visible emission observation results AND Measurements to determine conditions of performance tests and performance evaluations.	Yes.
§63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	No.
§63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status	Yes.
§63.10(b)(3)	Records	Applicability Determinations	Yes.
§63.10(c)(1),(5)-(8),(10)-(15)	Records	Additional Records for continuous monitoring systems	Yes.
§63.10(c)(7)-(8)	Records	Records of excess emissions and parameter monitoring exceedances for continuous monitoring systems	No.
§63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes.
§63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	Yes.
§63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes.

§63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	Contents and submission	Yes.
§63.10(e)(1)-(2)	Additional continuous monitoring systems Reports	Must report results for each CEM on a unit AND Written copy of performance evaluation AND 3 copies of continuous opacity monitoring system performance evaluation	Yes.
§63.10(e)(3)	Reports	Excess Emission Reports	No.
§63.10(e)(3)(i-iii)	Reports	Schedule for reporting excess emissions and parameter monitor exceedance (now defined as deviations)	No.
§63.10(e)(3)(iv-v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedance (now defined as deviations) AND Provision to request semiannual reporting after compliance for one year AND Submit report by 30th day following end of quarter or calendar half AND	No.

		If there has not been an exceedance or excess emission (now defined as deviations), report contents is a statement that there have been no deviations	
§63.10(e)(3)(iv-v)	Excess Emissions Reports	Must submit report containing all of the information in §63.10(c)(5-13), §63.8(c)(7-8)	No.
§63.10(e)(3)(vi-viii)	Excess Emissions Report and Summary Report	Requirements for reporting excess emissions for continuous monitoring systems (now called deviations) Requires all of the information in §63.10(c)(5-13), §63.8(c)(7-8)	No.
§63.10(e)(4)	Reporting continuous opacity monitoring system data	Must submit continuous opacity monitoring system data with performance test data	Yes.
§63.10(f)	Waiver for Record keeping/Reporting	Procedures for Administrator to waive	Yes.
§63.11	Flares	Requirements for flares	No.
§63.12	Delegation	State authority to enforce standards	Yes.
§63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes.
§63.14	Incorporation by Reference	Test methods incorporated by reference	Yes.
§63.15	Availability of Information	Public and confidential information	Yes.

bb. **Appendix A to Subpart DDDDD – Methodology and Criteria for Demonstrating Eligibility for the Health-Based Compliance Alternatives Specified for the Large Solid Fuel Subcategory**

1. Purpose/Introduction

This appendix provides the methodology and criteria for demonstrating that your affected source is eligible for the compliance alternative for the HCl emission limit and/or the total selected metals (TSM) emission limit. This appendix specifies emissions testing methods that you must use to determine HCl, chlorine, and

manganese emissions from the affected units and what parts of the affected source facility must be included in the eligibility demonstration. You must demonstrate that your affected source is eligible for the health-based compliance alternatives using either a look-up table analysis (based on the look-up tables included in this appendix) or a site-specific compliance demonstration performed according to the criteria specified in this appendix. This appendix also specifies how and when you file any eligibility demonstrations for your affected source and how to show that your affected source remains eligible for the health-based compliance alternatives in the future.

2. Who is eligible to demonstrate that they qualify for the health-based compliance alternatives?

Each new, reconstructed, or existing affected source may demonstrate that they are eligible for the health-based compliance alternatives. Section 63.7490 of subpart DDDDD defines the affected source and explains which affected sources are new, existing, or reconstructed.

3. What parts of my facility have to be included in the health-based eligibility demonstration?

If you are attempting to determine your eligibility for the compliance alternative for HCl, you must include every emission point subject to subpart DDDDD in the eligibility demonstration.

If you are attempting to determine your eligibility for the compliance alternative for TSM, you must include every emission point subject to subpart DDDDD in the eligibility demonstration.

4. How do I determine HAP emissions from my affected source?

(a) You must conduct HAP emissions tests for every emission point covered under subpart DDDDD within the affected source facility according to the requirements in paragraphs (b) through (f) of this section and the methods specified in Table 1 of this appendix.

If you are attempting to determine your eligibility for the compliance alternative for HCl, you must test the subpart DDDDD units at your facility for both HCl and Cl_2.

If you are attempting to determine your eligibility for the compliance alternative for TSM, you must test the subpart DDDDD units at your facility for manganese.

(b) <u>Periods when emissions tests must be conducted</u>.

(1) You must not conduct emissions tests during periods of startup, shutdown, or malfunction, as specified in §63.7(e)(1).

$$AveWeightedEmissions = \sum_{i=1}^{n} (Er \times Hm) \div \sum_{i=1}^{n} Hm$$

(2) You must test under worst-case operating conditions as defined in this appendix. You must describe your worst-case operating conditions in your performance test report for the process and control systems (if applicable) and explain why the conditions are worst-case.

(c) Number of test runs. You must conduct three separate test runs for each test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

(d) Sampling locations. Sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere.

(e) Collection of monitoring data for HAP control devices. During the emissions test, you must collect operating parameter monitoring system data at least every 15 minutes during the entire emissions test and establish the site-specific operating requirements in Tables 3 or 4, as appropriate, of subpart DDDDD using data from the monitoring system and the procedures specified in §63.7530 of subpart DDDDD.

(f) Nondetect data. You may treat emissions of an individual HAP as zero if all of the test runs result in a nondetect measurement and the condition in paragraph (1) is met for the manganese test method. Otherwise nondetect data for individual HAP must be treated as one-half of the method detection limit.

(1) For manganese measured using Method 29 in appendix A to 40 CFR part 60, you analyze samples using atomic absorption spectroscopy (AAS).

(g) You must determine the maximum hourly emission rate for each appropriate emission point according to equation 1.

(Eq. 1)

where:

MaxHourly Emissions	=	Maximum hourly emissions for hydrogen chloride, chlorine, or manganese, in units of pounds per hour.
Er	=	Emission rate (the 3-run average as determined according to Table 1 of this appendix) for hydrogen chloride, chlorine, or manganese, in units of pounds per million Btu of heat input.
Hm	=	Maximum rated heat input capacity of appropriate emission point, in units of million Btu per hour.

5. What are the criteria for determining if my facility is eligible for the health-based compliance alternatives?

(a) Determine the HAP emissions from each appropriate emission point within the affected source facility using the procedures specified in section 4 of this appendix.

(b) Demonstrate that your facility is eligible for either of the health-based compliance alternatives using either the methods described in section 6 of this appendix (look-up table analysis) or section 7 of this appendix (site-specific compliance demonstration).

(c) Your facility is eligible for the health-based compliance alternative for HCl if 1 of the following 2 statements is true:

(1) The calculated HCl-equivalent emission rate is below the appropriate value in the look-up table;

(2) Your site-specific compliance demonstration indicates that your maximum HI for HC1 and $C1_2$ at a location where people live is less than or equal to 1.0;

(d) Your facility is eligible for the health-based compliance alternative for TSM if 1 of the following 2 statements is true:

(1) The manganese emission rate for all your subpart DDDDD sources is below the appropriate value in the look-up table;

(2) Your site-specific compliance demonstration indicates that your maximum HQ for manganese at a location where people live is less than or equal to 1.0;

6. How do I conduct a look-up table analysis?

You may use look-up tables to demonstrate that your facility is eligible for either the compliance alternative for the HCl emission limit or the compliance alternative for TSM emission limit.

(a) HCl health-based compliance alternative. To calculate the total toxicity-weighted HCl-equivalent emission rate for your facility, first calculate the total affected source emission rate of HCl by summing the maximum hourly HCl emission rates from all your subpart DDDDD sources. Then, similarly, calculate the total affected source emission rate for Cl_2. Finally, calculate the toxicity-weighted emission rate (expressed in HCl equivalents) according to equation 2 of this appendix.

$$ER_{tw} = 3(ER_i \times (RfC_{HCl}/RfC_i)) \qquad \text{Eq. 2}$$

where:

ER_{tw} is the HC1-equivalent emission rate, lb/hr

ER_i is the emission rate of HAP i in lbs/hr

RfC_i is the reference concentration of HAP i

RfC_{HCl} is the reference concentration of HCl (RfCs for HC1 and $C1_2$ can be found at http://www.epa.gov/ttn/atw/toxsource/summary.html)

The calculated HCl-equivalent emission rate will then be compared to the appropriate allowable emission rate in Table 2 of this appendix. To determine the correct value from the table, a subpart DDDDD average value should be used for stack height and the minimum distance between any subpart DDDDD stack at the facility and the property boundary should be used for property boundary distance. If one or both of these values do not match the exact values in the lookup tables then use the next lowest table value. (Note: If your average stack height is less than 5 meters, you must use the 5 meter row.) Your facility is eligible to comply with the health-based alternative HCl emission limit if your toxicity-weighted HCl equivalent emission rate, determined using the methods specified in this appendix, does not exceed the appropriate value in Table 2 of this appendix.

(b) TSM Compliance Alternative. To calculate the total manganese emission rate for your affected source, sum the maximum hourly manganese emission rates for all your subpart DDDDD sources. The calculated manganese emission rate will then be compared to the allowable emission rate in the Table 3 of this appendix. To determine the correct value from the table, a subpart DDDDD average value should be used for stack height and the minimum distance between any subpart DDDDD stack at the facility and the property boundary should be used for property boundary distance. If one or both of these values do not match the exact values in the lookup tables then use the next lowest table value. (Note: If your average stack height is less

than 5 meters, you must use the 5 meter row.) Your facility may exclude manganese when demonstrating compliance with the TSM emission limit if your manganese emission rate, determined using the methods specified in this appendix, does not exceed the appropriate value specified in Table 3 of this appendix.

7. How do I conduct a site-specific compliance demonstration?

If you fail to demonstrate that your facility is able to comply with one or both of the alternative health-based emission standards using the lookup table approach, you may choose to perform a site-specific compliance demonstration for your facility. You may use any scientifically-accepted peer-reviewed risk assessment methodology for your site-specific compliance demonstration. An example of one approach for performing a site-specific compliance demonstration for air toxics can be found in the EPA's "Air Toxics Risk Assessment Reference Library, Volume 2, Site-Specific Risk Assessment Technical Resource Document", which may be obtained through the EPA's Air Toxics Website at www.epa.gov/ttn/atw.

(a) Your facility is eligible for the HCl alternative compliance option if your site-specific compliance demonstration shows that the maximum HI for HC1 and Cl_2 from your subpart DDDDD sources is less than 1.0.

(b) Your facility is eligible for the TSM alternative compliance option if your site-specific compliance demonstration shows that the maximum HQ for manganese from your subpart DDDDD sources is less than 1.0.

(c) at a minimum, your site-specific compliance demonstration must:

(1) estimate long-term inhalation exposures through the estimation of annual or multi-year average ambient concentrations;

(2) estimate the inhalation exposure for the individual most exposed to the facility's emissions;

(3) use site-specific, quality-assured data wherever possible;

(4) use health-protective default assumptions wherever site-specific data are not available, and;

(5) contain adequate documentation of the data and methods used for the assessment so that it is transparent and can be reproduced by an experienced risk assessor and emissions measurement expert.

(d) Your site-specific compliance demonstration need not:

(1) assume any attenuation of exposure concentrations due to the penetration of outdoor pollutants into indoor exposure areas;

(2) assume any reaction or deposition of the emitted pollutants during transport from the emission point to the point of exposure;

8. What must my health-based eligibility demonstration contain?

(a) Your health-based eligibility demonstration must contain, at a minimum, the information specified in paragraphs (a)(1) through (6) of this section.

(1) Identification of each appropriate emission point at the affected source facility, including the maximum rated capacity of each appropriate emission point.

(2) Stack parameters for each appropriate emission point including, but not limited to, the parameters listed in (a)(2)(i) through (iv) below:

(i) Emission release type

(ii) Stack height, stack area, stack gas temperature, and stack gas exit velocity

(iii) Plot plan showing all emission points, nearby residences, and fenceline.

(iv) Identification of any control devices used to reduce emissions from each appropriate emission point.

(3) Emission test reports for each pollutant and appropriate emission point which has been tested using the test methods specified in Table 1 of this appendix, including a description of the process parameters identified as being worst case. For those emissions which are not measured but are included in the assessment, the calculation method used, the inputs and outputs of any estimation developed, and any supporting references should be included in the documentation.

(4) Identification of the RfC values used in your look-up table analysis or site-specific compliance demonstration.

(5) Calculations used to determine the HCl-equivalent or manganese emission rates according to sections 6(a) or (b) of this appendix.

(6) Identification of the controlling process factors (including, but not limited to, fuel type, heat input rate, type of control devices, process parameters reflecting the emissions rates used for your eligibility demonstration) that will become Federally enforceable permit conditions used to show that your facility remains eligible for the health-based compliance alternatives.

(b) If you use the look-up table analysis in section 6 of this appendix to demonstrate that your facility is eligible for either health-based compliance alternative, your eligibility demonstration must contain, at a minimum, the information in paragraphs (a) and (b)(1) through (3) of this section.

(1) Calculations used to determine the average stack height of the subpart DDDDD emission points.

(2) Identification of the subpart DDDDD emission point with the minimum distance to the property boundary of the facility.

(3) Comparison of the values in the look-up tables (Tables 2 and 3 of this appendix) to your maximum HCl-equivalent or manganese emission rates.

(c) If you use a site-specific compliance demonstration as described in section 7 of this appendix to demonstrate that your facility is eligible, your eligibility demonstration must contain, at a minimum, the information in paragraphs (a) and (c)(1) through (7) of this section:

(1) Identification of the risk assessment methodology used.

(2) Documentation of the fate and transport model used.

(3) Documentation of the fate and transport model inputs, including the information described in paragraphs (a)(1) through (5) of this section converted to the dimensions required for the model and all of the following that apply: meteorological data; building, land use, and terrain data; receptor locations and population data; and other facility-specific parameters input into the model.

(4) Documentation of the fate and transport model outputs.

(5) Documentation of any exposure assessment and risk characterization calculations.

(6) Comparison of the HQ HI to the limit of 1.0.

9. When do I have to complete and submit my health-based eligibility demonstration?

(a) If you have an existing affected source, you must complete and submit your eligibility demonstration to your permitting authority, along with a signed certification that the demonstration is an accurate depiction of your facility, no later than the date one year prior to the compliance date of subpart DDDDD. A separate copy of the eligibility demonstration must be submitted to: U.S. EPA, Risk and Exposure Assessment Group, Emission Standards Division (C404-01), Attn: Group Leader, Research Triangle Park, North Carolina 27711.

(b) If you have a new or reconstructed affected source that starts up before the effective date of subpart DDDDD, or an affected source that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP before the effective date of subpart DDDDD, then you must comply with the requirements of subpart DDDDD until your eligibility demonstration is completed and submitted to your permitting authority.

(c) If you have a new or reconstructed affected source that starts up after the effective date for subpart DDDDD, or an affected source that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP after the effective date for subpart DDDDD, then you must follow the schedule in paragraphs (1) and (2) of this section.

(1) You must complete and submit a preliminary eligibility demonstration based on the information (e.g., equipment types, estimated emission rates, etc.) used to obtain your title V permit. You must base your preliminary eligibility demonstration on the maximum emissions allowed under your title V permit. If the preliminary eligibility demonstration indicates that your affected source facility is eligible for either compliance alternative, then you may start up your new affected source and your new affected source will be considered in compliance with the alternative HCl standard and subject to the compliance requirements in this appendix or, in the case of manganese, your compliance demonstration with the TSM emission limit is based on 7 metals (excluding manganese).

(2) You must conduct the emission tests specified in section 4 of this appendix upon initial startup and use the results of these emissions tests to complete and submit your eligibility demonstration within 180 days following your initial startup date. To be eligible, you must meet the criteria in section 11 of this appendix within 18 months following initial startup of your affected source.

10. When do I become eligible for the health-based compliance alternatives?

To be eligible for either health-based compliance alternative, the parameters that defined your affected source as eligible for the health-based compliance alternatives (including, but not limited

to, fuel type, type of control devices, process parameters reflecting the emissions rates used for your eligibility demonstration) must be incorporated as Federally enforceable limits into your title V permit. If you do not meet these criteria, then your affected source is subject to the applicable emission limits, operating limits, and work practice standards in Subpart DDDDD.

11. How do I ensure that my facility remains eligible for the health-based compliance alternatives?

(a) You must update your eligibility demonstration and resubmit it each time you have a process change, such that any of the parameters that defined your affected source changes in a way that could result in increased HAP emissions (including, but not limited to, fuel type, change in type of control device, changes in process parameters documented as worst-case conditions during the emissions testing used for your approved eligibility demonstration).

(b) If you are updating your eligibility demonstration to account for an action in paragraph (a) of this section, then you must perform emission testing according to section 4 of this appendix for the subpart DDDDD emission points that may have increased HAP emissions beyond the levels reflected in your previously approved eligibility demonstration due to the process change. You must submit your revised eligibility demonstration to the permitting authority prior to revising your permit to incorporate the process change. If your updated eligibility demonstration indicates that your affected source is no longer eligible for the health-based compliance alternatives, then you must comply with the applicable emission limits, operating limits, and compliance requirements in Subpart DDDDD prior to making the process change and revising your permit.

13. What records must I keep?

You must keep records of the information used in developing the eligibility demonstration for your affected source, including all of the information specified in section 8 of this appendix.

14. Definitions.

The definitions in §63.7575 of subpart DDDDD apply to this appendix. Additional definitions applicable for this appendix are as follows:

<u>Hazard Index (HI)</u> means the sum of more than one hazard quotient for multiple substances and/or multiple exposure pathways.

<u>Hazard Quotient (HQ)</u> means the ratio of the predicted media concentration of a pollutant to the media concentration at which no adverse effects are expected. For inhalation exposures, the HQ is calculated as the air concentration divided by the RfC.

Look-up table analysis means a risk screening analysis based on comparing the HAP or HAP-equivalent emission rate from the affected source to the appropriate maximum allowable HAP or HAP-equivalent emission rates specified in Tables 2 and 3 of this appendix.

Reference Concentration (RfC) means an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. It can be derived from various types of human or animal data, with uncertainty factors generally applied to reflect limitations of the data used.

Worst-case operating conditions means operation of an affected unit during emissions testing under the conditions that result in the highest HAP emissions or that result in the emissions stream composition (including HAP and non-HAP) that is most challenging for the control device if a control device is used. For example, worst case conditions could include operation of an affected unit firing solid fuel likely to produce the most HAP.

Table 1 to Appendix B of Subpart DDDDD. Emission Test Methods.

For...	You must...	Using...
(1) each subpart DDDDD emission point for which you choose to use a compliance alternative	select sampling ports' location and the number of traverse points	Method 1 of 40 CFR part 60, appendix A.
(2) each emission DDDDD emission point for which you choose to use a compliance alternative	determine velocity and volumetric flow rate;	Method 2, 2F, or 2G in appendix A to 40 CFR part 60.
(3) each emission DDDDD emission point for which you choose to use a compliance alternative	conduct gas molecular weight analysis	Method 3A or 3B in appendix A to 40 CFR part 60.
(4) each emission DDDDD emission point for which you choose to use a compliance alternative	measure moisture content of the stack gas	Method 4 in appendix A to 40 CFR part 60.
(5) each emission DDDDD emission point for which you choose to use the HCl compliance alternative	measure the hydrogen chloride and chlorine emission concentrations	Method 26 or 26A in appendix A to 40 CFR part 60.
(6) each emission DDDDD emission point for which you choose to use the TSM compliance alternative	measure the manganese emission concentration	Method 29 in appendix A to 40 CFR part 60.

(7) each emission DDDDD emission point for which you choose to use a compliance alternative	convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.

Table 2 to Appendix A of Subpart DDDDD. Allowable toxicity-weighted emission rate expressed in HCl equivalents (lbs/hr)

	distance to property boundary (m)											
Stack ht.(m)	**0**	**50**	**100**	**150**	**200**	**250**	**500**	**1000**	**1500**	**2000**	**3000**	**5000**
5	114.9	114.9	114.9	114.9	114.9	114.9	144.3	287.3	373.0	373.0	373.0	373.0
10	188.5	188.5	188.5	188.5	188.5	188.5	195.3	328.0	453.5	434.4	434.4	434.4
20	386.1	386.1	386.1	386.1	386.1	386.1	386.1	425.4	580.0	602.7	602.7	602.7
30	396.1	396.1	396.1	396.1	396.1	396.1	396.1	436.3	596.2	690.6	807.8	816.5
40	408.1	408.1	408.1	408.1	408.1	408.1	408.1	448.2	613.3	715.5	832.2	966.0
50	421.4	421.4	421.4	421.4	421.4	421.4	421.4	460.6	631.0	746.3	858.2	1002.8
60	435.5	435.5	435.5	435.5	435.5	435.5	435.5	473.4	649.0	778.6	885.0	1043.4
70	450.2	450.2	450.2	450.2	450.2	450.2	450.2	486.6	667.4	813.8	912.4	1087.4
80	465.5	465.5	465.5	465.5	465.5	465.5	465.5	500.0	685.9	849.8	940.9	1134.8
100	497.5	497.5	497.5	497.5	497.5	497.5	497.5	527.4	723.6	917.1	1001.2	1241.3
200	677.3	677.3	677.3	677.3	677.3	677.3	677.3	682.3	919.8	1167.1	1390.4	1924.6

Table 3 to Appendix A of Subpart DDDDD. Allowable Manganese Emission Rate (lbs/hr)

	distance to property boundary (m)											
Stack ht.(m)	**0**	**50**	**100**	**150**	**200**	**250**	**500**	**1000**	**1500**	**2000**	**3000**	**5000**
5	0.29	0.29	0.29	0.29	0.29	0.29	0.36	0.72	0.93	0.93	0.93	0.93
10	0.47	0.47	0.47	0.47	0.47	0.47	0.49	0.82	1.13	1.09	1.09	1.09
20	0.97	0.97	0.97	0.97	0.97	0.97	0.97	1.06	1.45	1.51	1.51	1.51
30	0.99	0.99	0.99	0.99	0.99	0.99	0.99	1.09	1.49	1.73	2.02	2.04
40	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.12	1.53	1.79	2.08	2.42
50	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.15	1.58	1.87	2.15	2.51
60	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.18	1.62	1.95	2.21	2.61
70	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.22	1.67	2.03	2.28	2.72
80	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.25	1.71	2.12	2.35	2.84
100	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.32	1.81	2.29	2.50	3.10
200	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.71	2.30	2.92	3.48	4.81

18. 40 CFR Part 63, Subpart GGGGG--National Emission Standards for Hazardous Air Pollutants: Site Remediation

What this Subpart Covers

§ 63.7880 What is the purpose of this subpart?

This subpart establishes national emissions limitations and work practice standards for hazardous air pollutants (HAP) emitted from site remediation activities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emissions limitations and work practice standards.

§ 63.7881 Am I subject to this subpart?

(a) This subpart applies to you if you own or operate a facility at which you conduct a site remediation, as defined in §63.7957; and this site remediation, unless exempted under paragraph (b) or (c) of this section, meets all three of the following conditions specified in paragraphs (a)(1) through (3) of this section.

(1) Your site remediation cleans up a remediation material, as defined in §63.7957.

(2) Your site remediation is co-located at your facility with one or more other stationary sources that emit HAP and meet an affected source definition specified for a source category that is regulated by another subpart under 40 CFR part 63. This condition applies regardless whether or not the affected stationary source(s) at your facility is subject to the standards under the applicable subpart(s).

(3) Your facility is a major source of HAP as defined in §63.2. A major source emits or has the potential to emit any single HAP at the rate of 10 tons (9.07 megagrams) or more per year of any HAP or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year. All emissions of HAP from every source at your facility (i.e., both the site remediation activity and all other facility activities) must be considered in making this calculation.

(b) You are not subject to this subpart if your site remediation qualifies for any of one of the exemptions listed in paragraphs (b)(1) through (6) of this section.

(1) Your site remediation is not subject to this subpart if the site remediation only cleans up material that does not contain any of the HAP listed in Table 1 of this subpart.

(2) Your site remediation is not subject to this subpart if the site remediation will be performed under the authority of the Comprehensive Environmental Response and Compensation Liability Act (CERCLA) as a remedial action or a non time-critical removal action.

(3) Your site remediation is not subject to this subpart if the site remediation will be performed under a Resource Conservation and Recovery Act (RCRA) corrective action conducted at a treatment, storage and disposal facility (TSDF) that is either required by your permit issued by either the U.S. Environmental Protection Agency (EPA) or a State program authorized by the EPA under RCRA section 3006; required by orders authorized under RCRA; or required by orders authorized under RCRA section 7003.

(4) Your site remediation is not subject to this subpart if the site remediation is conducted at a gasoline service station to clean up remediation material from a leaking underground storage tank.

(5) Your site remediation is not subject to this subpart if the site remediation is conducted at a farm or residential site.

(6) Your site remediation is not subject to this subpart if the site remediation is conducted at a research and development facility that meets the requirements under Clean Air Act (CAA) section 112(c)(7).

(c) Your site remediation is not subject to this subpart, except for the record keeping requirements specified in this paragraph, if the site remediation meets the all of the conditions in paragraphs (c)(1) through (3) of this section.

(1) Before beginning the site remediation, you determine for the remediation material that you will excavate, extract, pump, or otherwise remove during your site remediation that the total quantity of the HAP listed in Table 1 of this subpart which is contained in the material is less than 1 megagram per year (Mg/yr).

(2) You prepare and maintain at your facility written documentation to support your determination of the total HAP quantity used to demonstrate compliance with paragraph (c)(1) of this section. This documentation must include a description of your methodology and data you used for determining the total HAP content of the material.

(3) This exemption may be applied to more than one site remediation at your facility provided that the total quantity of the HAP listed in Table 1 of this subpart for all of your site remediations exempted under this provision is less than 1 Mg/yr.

(d) Your site remediation is not subject to the requirements of this subpart if all remediation activities at your facility subject to this subpart are completed and you have notified the Administrator in writing that all remediation activities subject to this subpart are completed. You must maintain records of compliance, in accordance with §63.7953, for each remediation activity that was subject to this subpart. All future remediation activity meeting the applicability criteria in this section must comply with the requirements of this subpart.

§ 63.7882 What site remediation sources at my facility does this subpart affect?

(a) This subpart applies to each new, reconstructed, or existing affected source for your site remediation as designated by paragraphs (a)(1) through (3) of this section.

(1) Process vents. The affected source is the entire group of process vents associated with the in-situ and ex-situ remediation processes used at your site to remove, destroy, degrade, transform, or immobilize hazardous substances in the remediation material subject to remediation. Examples of such in-situ remediation processes include, but are not limited to, soil vapor extraction and bioremediation processes. Examples of such ex-situ remediation processes include but are not limited to, thermal desorption, bioremediation, and air stripping processes.

(2) Remediation material management units. Remediation material management unit means a tank, surface impoundment, container, oil-water separator, organic-water separator, or transfer system, as defined in §63.7957, and is used at your site to manage remediation material. The affected source is the entire group of remediation material management units used for the site remediations at your site. For the purpose of this subpart, a tank or container that is also equipped with a vent that serves as a process vent, as defined in §63.7957, is not a remediation material management unit, but instead this unit is considered to be a process vent affected source under paragraph (a)(1) of this section.

(3) Equipment leaks. The affected source is the entire group of equipment components (pumps, valves, etc.) used to manage remediation materials and meeting both of the conditions specified in paragraphs (a)(3)(i) and (ii) of this section. If either of these conditions do not apply to an equipment component, then that component is not part of the affected source for equipment leaks.

(i) The equipment component contains or contacts remediation material having a concentration of total HAP listed in Table 1 of this subpart equal to or greater than 10 percent by weight.

(ii) The equipment component is intended to operate for 300 hours or more during a calendar year in remediation material service, as defined in §63.7957.

(b) Each affected source for your site is existing if you commenced construction or reconstruction of the affected source before July 30, 2002.

(c) Each affected source for your site is new if you commenced construction or reconstruction of the affected source on or after July 30, 2002. An affected source is reconstructed if it meets the definition of reconstruction in §63.2.

§ 63.7883 When do I have to comply with this subpart?

(a) If you have an existing affected source, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than October 9, 2006.

(b) If you have a new affected source that manages remediation material other than a radioactive mixed waste as defined in §63.7957, then you must meet the compliance date specified in paragraph (b)(1) or (2) of this section, as applicable to your affected source.

(1) If the affected source's initial startup date is on or before October 8, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you by October 8, 2003.

(2) If the affected source's initial startup date is after October 8, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup.

(c) If you have a new affected source that manages remediation material that is a radioactive mixed waste as defined in §63.7957, then you must meet the compliance date specified in paragraph (c)(1) or (2) of this section, as applicable to your affected source.

(1) If the affected source's initial startup date is on or before October 8, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than October 9, 2006.

(2) If the affected source's initial startup date is after October 8, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup.

(d) If your facility is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP as defined in §63.2, then you must meet the compliance dates specified in paragraphs (d)(1) and (2) of this section.

(1) For each source at your facility that is a new affected source subject to this subpart, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup.
(2) For all other affected sources subject to this subpart, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than 3 years after your facility becomes a major source.

(e) You must meet the notification requirements, according to the schedule applicable to your facility, as specified in §63.7950 and in 40 CFR part 63, subpart A. Some of the notifications must be submitted before you are required to comply with the emissions limitations and work practice standards in this subpart.

General Standards

§ 63.7884 What are the general standards I must meet for each site remediation with affected sources?

(a) For each site remediation with affected sources designated under §63.7882, you must meet the standards specified in §§63.7885 through 63.7953, as applicable to your affected sources, unless your site remediation meets the requirements for an exemption under paragraph (b) of this section.

(b) A site remediation that is completed within 30 consecutive calendar days according to the conditions in paragraphs (b)(1) and (2) of this section is not subject to the standards under paragraph (a) of this section. This exemption cannot be used for a site remediation involving the staged or intermittent cleanup of remediation material whereby the remediation activities at the site are started, stopped, and then re-started in a series of intervals with durations less than 30-days per interval for which the total time of all of the intervals required to complete the site remediation exceeds a total of 30 days.

(1) The 30-day period for a site remediation is determined from the first day that any action is initiated that removes, destroys, degrades, transforms, immobilizes, or otherwise manages the remediation materials. The end of a site remediation is determined by the last day on which treatment or disposal of the remediation materials from the cleanup is completed. The following activities, when completed before beginning this initial action, are not counted as part of the 30-day period: activities to characterize the type and extent of the contamination by collecting and analyzing samples, activities to obtain permits from Federal, State, or local authorities to conduct the site remediation, activities to schedule workers and

necessary equipment, and activities to arrange for contractor or third party assistance in performing the site remediation.

(2) You must prepare and maintain at your facility written documentation describing the exempted site remediation, and listing the initiation and completion dates for the site remediation.

§ 63.7885 What are the general standards I must meet for my affected process vents?

(a) For the process vents that comprise the affected source designated under §63.7882, you must select and meet the requirements under one of the options specified in paragraph (b) of this section.

(b) For each affected process vent, except as exempted under paragraph (c) of this section, you must meet one of the options in paragraphs (b)(1) through (3) of this section.

(1) You control HAP emissions from the affected process vents according to the standards specified in §§63.7890 through 63.7893.

(2) You determine for the remediation material treated or managed by the process vented through the affected process vents that the average total volatile organic hazardous air pollutant (VOHAP) concentration, as defined in §63.7957, of this material is less than 10 parts per million by weight (ppmw). Determination of the VOHAP concentration is made using the procedures specified in §63.7943.

(3) If the process vent is also subject to another subpart under 40 CFR part 61 or 40 CFR part 63, you control emissions of the HAP listed in Table 1 of this subpart from the affected process vent in compliance with the standards specified in the applicable subpart. This means you are complying with all applicable emissions limitations and work practice standards under the other subpart (e.g., you install and operate the required air pollution controls or have implemented the required work practice to reduce HAP emissions to levels specified by the applicable subpart). This provision does not apply to any exemption of the affected source from the emissions limitations and work practice standards allowed by the other applicable subpart.

(c) A process vent that meets the exemption requirements in paragraphs (c)(1) and (2) of this section is exempted from the requirements in paragraph (b) of this section.

(1) The process vent stream exiting the process vent meets the conditions in either paragraph (c)(1)(i) or (ii) of this section.

(i) The process vent stream flow rate is less than 0.005 cubic meters per minute (m^3/min) at standard conditions (as defined in 40 CFR 63.2); or

(ii) The process vent stream flow rate is less than 6.0 m^3/min at standard conditions (as defined in 40 CFR 63.2) and the total concentration of HAP listed in Table 1 of this subpart is less than 20 parts per million by volume (ppmv).

(2) You must demonstrate that the process vent stream meets the applicable exemption conditions in paragraph (c)(1) of this section using the procedures specified in §63.694(m). You must prepare and maintain documentation at your facility to support your determination of the process vent stream flow rate.

This documentation must include identification of each process vent exempted under this paragraph and the test results used to determine the process vent stream flow rate and total HAP concentration, as applicable to the exemption conditions for your process vent.

You must perform a new determination of the process vent stream flow rate and total HAP concentration, as applicable to the exemption conditions for your process vent, whenever changes to operation of the unit on which the process vent is used could cause the process vent stream conditions to exceed the maximum limits of the exemption.

§ 63.7886 What are the general standards I must meet for my affected remediation material management units?

(a) For each remediation material management unit that is part of an affected source designated by §63.7882, you must select and meet the requirements under one of the options specified in paragraph (b) of this section except for those remediation material management units exempted under paragraph (c) or (d) of this section.

(b) For each affected remediation material management unit, you must meet one of the options in paragraphs (b)(1) through (4) of this section.

(1) You control HAP emissions from the affected remediation material management unit according to the standards specified in paragraphs (b)(1)(i) through (v) of this section, as applicable to the unit.

(i) If the remediation material management unit is a tank, then you control HAP emissions according to the standards specified in §§63.7895 through 63.7898.

(ii) If the remediation material management unit is a container, then you control HAP emissions according to the standards specified in §§63.7900 through 63.7903.

(iii) If the remediation material management unit is a surface impoundment, then you control HAP emissions according to the standards specified in §§63.7905 through 63.7908.

(iv) If the remediation material management unit is a oil-water or organic-water separator, then you control HAP emissions according to the standards specified in §§63.7910 through 63.7913.

(v) If the remediation material management unit is a transfer system, then you control HAP emissions according to the standards specified in §§63.7915 through 63.7918.

(2) You determine for the remediation material placed in the remediation material management unit that the average total VOHAP concentration, as defined in §63.7957, of this material is less than 500 ppmw. Determination of the total VOHAP concentration is made based on the remediation material composition at the point-of-extraction, as defined in §63.7957, using the procedures specified in §63.7943.

(3) If the remediation material management unit is also subject to another subpart under 40 CFR part 61 or 40 CFR part 63, you control emissions of the HAP listed in Table 1 of this subpart from the affected remediation material management unit in compliance with the standards specified in the applicable subpart. This means you are complying with all applicable emissions limitations and work practice standards under

the other subpart (e.g., you install and operate the required air pollution controls or have implemented the required work practice to reduce HAP emissions to levels specified by the applicable subpart). This provision does not apply to any exemption of the affected source from the emissions limitations and work practice standards allowed by the other applicable subpart.

(4) If the remediation material management unit is an open tank or surface impoundment used for a biological treatment process, you meet the requirements as specified in paragraphs (b)(4)(i) and (ii) of this section.

(i) You demonstrate that the biological treatment process conducted in the open tank or surface impoundment meets the performance levels specified in either §63.684(b)(4)(i) or (ii).

(ii) You monitor the biological treatment process conducted in the open tank or surface impoundment according to the requirements in §63.684(e)(4).

(c) A remediation material management unit is exempted from the requirements in paragraph (b) of this section if this unit is used for cleanup of radioactive mixed waste, as defined in §63.7957, that is subject to applicable regulations, directives, and other requirements under the Atomic Energy Act, the Nuclear Waste Policy Act, or the Waste Isolation Pilot Plant Land Withdrawal Act.

(d) One or a combination of remediation material management units may be exempted at your discretion from the requirements in paragraph (b) of this section provided that the total annual quantity of HAP listed in Table 1 of this subpart contained in the remediation material placed in all of the remediation material management units exempted under this paragraph is less than 1 Mg/yr. For each remediation material management unit you select to be exempted under this provision, you must meet the requirements in paragraphs (d)(1) and (2) of this section.

(1) You must designate each of the remediation material management units you are selecting to be exempted under this paragraph by either submitting to the Administrator a written notification identifying the exempt units or permanently marking the exempt units at the faculty site. If you choose to prepare and submit a written notification, this notification must include a site plan, process diagram, or other appropriate documentation identifying each of the exempt units. If you choose to permanently mark the exempt units, each exempt unit must be marked in such a manner that it can be readily identified as an exempt unit from the other remediation material management units located at the site.

(2) You must prepare an initial determination of the total annual HAP quantity in the remediation material placed in the units exempted under this paragraph. This determination is based on the total quantity of the HAP listed in Table 1 of this subpart as determined at the point where the remediation material is placed in each exempted unit. You must perform a new determination whenever the extent of changes to the quantity or composition of the remediation material placed in the exempted units could cause the total annual HAP content in the remediation material to exceed 1 Mg/yr. You must maintain documentation to support the most recent determination of the total annual HAP quantity. This documentation must include the basis and data used for determining the organic HAP content of the remediation material.

§ 63.7887 What are the general standards I must meet for my affected equipment leak sources?

You must control HAP emissions from equipment leaks from each equipment component that is part of the affected source specified in §63.7882 by implementing leak detection and control measures according to the standards specified in §§63.7920 through 63.7922.

§ 63.7888 How do I implement this rule at my facility using the cross-referenced requirements in other subparts?

(a) For the purposes of this subpart, when you read the term "HAP listed in Table 1 of this subpart" in a cross-referenced section under 40 CFR part 63, subpart DD--National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations, you should refer to Table 1 of this subpart.

(b) For the purposes of this subpart, when you read the term off-site material in a cross-referenced section under 40 CFR part 63, subpart DD--National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations you should substitute the term remediation material, as defined in §63.7957.

(c) For the purposes of this subpart, when you read the term regulated material in a cross-referenced section under 40 CFR part 63, subparts OO, PP, QQ, RR, TT, UU, WW, and VV you should substitute the term remediation material, as defined in §63.7957.

Process Vents

§ 63.7890 What emissions limitations and work practice standards must I meet for process vents?

(a) You must control HAP emissions from each new and existing process vent subject to §63.7885(b)(1) according to emissions limitations and work practice standards in this section that apply to your affected process vents.

(b) For your affected process vents, you must meet one of the facility-wide emission limit options specified in paragraphs (b)(1) through (4) of this section. If you have multiple affected process vent streams, you may comply with this paragraph using a combination of controlled and uncontrolled process vent streams that achieve the facility-wide emission limit that applies to you.

(1) Reduce from all affected process vents the total emissions of the HAP listed in Table 1 of this subpart to a level less than 1.4 kilograms per hour (kg/hr) and 2.8 Mg/yr (3.0 pounds per hour (lb/hr) and 3.1 tpy); or

(2) Reduce from all affected process vents the emissions of total organic carbon (TOC) (minus methane and ethane) to a level below 1.4 kg/hr and 2.8 Mg/yr (3.0 lb/hr and 3.1 tpy); or

(3) Reduce from all affected process vents the total emissions of the HAP listed in Table 1 of this subpart by 95 percent by weight or more; or

(4) Reduce from all affected process vents the emissions of TOC (minus methane and ethane) by 95 percent by weight or more.

(c) For each closed vent system and control device you use to comply with paragraph (b) of this section, you must meet the operating limit requirements and work practice standards in §63.7925(c) through (j) that apply to your closed vent system and control device.

§ 63.7891 How do I demonstrate initial compliance with the emissions limitations and work practice standards for process vents?

(a) You must demonstrate initial compliance with the emissions limitations and work practice standards in §63.7890(b) applicable to your affected process vents by meeting the requirements in paragraphs (b) through (d) of this section.

(b) You have measured or determined using the procedures for performance tests and design evaluations in §63.7941 that emission levels from all of your affected process vents meet the facility-wide emission limits in §63.7890(b) that apply to you, as follows in paragraphs (b)(1) through (4) of this section.

(1) If you elect to meet §63.7890(b)(1), you demonstrate that the total emissions of the HAP listed in Table 1 of this subpart from all affected process vents at your facility are less than 1.4 kg/hr and 2.8 Mg/yr (3.0 lb/hr and 3.1 tpy).

(2) If you elect to meet §63.7890(b)(2), you demonstrate that emissions of TOC (minus methane and ethane) from all affected process vents at your facility are less than 1.4 kg/hr and 2.8 Mg/yr (3.0 lb/hr and 3.1 tpy).

(3) If you elect to meet §63.7890(b)(3), you demonstrate that the total emissions of the HAP listed in Table 1 of this subpart from all affected process vents are reduced by 95 percent by weight or more.

(4) If you elect to meet §63.7890(b)(4), you demonstrate that the emissions of TOC (minus methane and ethane) from all affected process vents are reduced by 95 percent by weight or more.

(c) For each closed vent system and control device you use to comply with §63.7890(b), you have met each requirement for demonstrating initial compliance with the emission limitations and work practice standards for a closed vent system and control device in §63.7926.

(d) You have submitted a notification of compliance status according to the requirements in §63.7950.

§ 63.7892 What are my inspection and monitoring requirements for process vents?

For each closed vent system and control device you use to comply with §63.7890(b), you must monitor and inspect the closed vent system and control device according to the requirements in §63.7927 that apply to you.

§ 63.7893 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for process vents?

(a) You must demonstrate continuous compliance with the emissions limitations and work practice standards in §63.7890 applicable to your affected process vents by meeting the requirements in paragraphs (b) through (d) of this section.

(b) You must maintain emission levels from all of your affected process vents to meet the facility-wide emission limits in §63.7890(b) that apply to you, as specified in the following paragraph (b)(1) through (4) of this section.

(1) If you elect to meet §63.7890(b)(1), you maintain the total emissions of the HAP listed in Table 1 of this subpart from all affected process vents at your facility are less than 1.4 kg/hr and 2.8 Mg/yr (3.0 lb/hr and 3.1 tpy).

(2) If you elect to meet §63.7890(b)(2), you maintain emissions of TOC (minus methane and ethane) from all affected process vents at your facility are less than 1.4 kg/hr and 2.8 Mg/yr (3.0 lb/hr and 3.1 tpy).

(3) If you elect to meet §63.7890(b)(3), you maintain the total emissions of the HAP listed in Table 1 of this subpart from all affected process vents are reduced by 95 percent by weight or more.

(4) If you elect to meet §63.7890(b)(4), you maintain that the emissions of TOC (minus methane and ethane) from all affected process vents are reduced by 95 percent by weight or more.

(c) For each closed vent system and control device you use to comply with §63.7890(b), you have met each requirement for demonstrating continuous compliance with the emission limitations and work practice standards for a closed vent system and control device in §63.7928.
(d) Keeping records to document continuous compliance with the requirements of this subpart according to the requirements in §63.7952.

Tanks

§ 63.7895 What emissions limitations and work practice standards must I meet for tanks?

(a) You must control HAP emissions from each new and existing tank subject to §63.7886(b)(1)(i) according to emissions limitations and work practice standards in this section that apply to your affected tanks.

(b) For each affected tank, you must install and operate air pollution controls that meet the requirements in paragraphs (b)(1) through (4) of this section that apply to your tank.

(1) Unless your tank is used for a waste stabilization process, as defined in §63.7957, you must determine the maximum HAP vapor pressure (expressed in kilopascals (kPa)) of the remediation material placed in your tank using the procedures specified in §63.7944.

(2) If the maximum HAP vapor pressure of the remediation material you place in your tank is less than 76.6 kPa, then you must determine which tank level controls (i.e., Tank Level 1 or Tank Level 2) apply to your tank as shown in Table 2 of this subpart, and based on your tank's design capacity (expressed in cubic meters (m^3)) and the maximum HAP vapor pressure of the remediation material you place in this tank. If

your tank is required by Table 2 of this subpart to use Tank Level 1 controls, then you must meet the requirements in paragraph (c) of this section. If your tank is required by Table 2 of this subpart to use Tank Level 2 controls, then you must meet the requirements in paragraph (d) of this section.

(3) If maximum HAP vapor pressure of the remediation material you place in your tank is 76.6 kPa or greater, then the tank must use one of the Tank Level 2 controls specified in paragraphs (d)(3) through (5) of this section. Use of floating roofs under paragraph (d)(1) or (2) of this section is not allowed for tanks managing these remediation materials.

(4) A tank used for a waste stabilization process, as defined in §63.7957, must use one of Tank Level 2 controls, as specified in paragraph (d) of this section, that is appropriate for your waste stabilization process.

(c) If you use Tank Level 1 controls, you must install and operate a fixed roof according to the requirements in §63.902. As an alternative to using this fixed roof, you may choose to use one of Tank Level 2 controls in paragraph (d) of this section.

(d) If you use Tank Level 2 controls, you must meet the requirements of one of the options in paragraphs (d)(1) through (5) of this section.

(1) Install and operate a fixed roof with an internal floating roof according to the requirements in §63.1063(a)(1)(i), (a)(2), and (b); or

(2) Install and operate an external floating roof according to the requirements in §63.1063(a)(1)(ii), (a)(2), and (b); or

(3) Install and operate a fixed roof vented through a closed vent system to a control device according to the requirements in §63.685(g). You must meet the emissions limitations and work practice standards in §63.7925 that apply to your closed vent system and control device; or

(4) Install and operate a pressure tank according to the requirements in §63.685(h); or

(5) Locate the tank inside a permanent total enclosure and vent emissions from the enclosure through a closed vent system to a control device that is an enclosed combustion device according to the requirements in §63.685(i). You must meet the emissions limitations and work practice standards in §63.7925 that apply to your closed vent system and control device.

(e) As provided in §63.6(g), you may request approval from the EPA to use an alternative to the work practice standards in this section that apply to your tanks. If you request for permission to use an alternative to the work practice standards, you must submit the information described in §63.6(g)(2).

§ 63.7896 How do I demonstrate initial compliance with the emissions limitations and work practice standards for tanks?

(a) You must demonstrate initial compliance with the emissions limitations and work practice standards in §63.7895 that apply to your affected tanks by meeting the requirements in paragraphs (b) through (h) of this section, as applicable to your containers.

(b) You have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (b)(1) and (2) of this section.

(1) You have determined the applicable tank control levels specified in §63.7895(b) for the tanks to be used for your site remediation.

(2) You have determined, according to the procedures §63.7944, and recorded the maximum HAP vapor pressure of the remediation material placed in each affected tank subject to $63.7886(b)(1)(i) that does not used Tank Level 2 controls.

(c) You must demonstrate initial compliance of each tank determined under paragraph (b) of this section to require Tank Level 1 controls if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (c)(1) through (3) of this section.

(1) Each tank using Tank Level 1 controls is equipped with a fixed roof and closure devices according to the requirements in §63.902(b) and (c) and you have records documenting the design.

(2) You have performed an initial visual inspection of the fixed roof and closure devices for defects according to the requirements in §63.906(a) and you have records documenting the inspection results.

(3) You will operate the fixed roof and closure devices according to the requirements in §63.902.

(d) You must demonstrate initial compliance of each tank determined under paragraph (b) of this section to require Tank Level 2 controls and using a fixed roof with an internal floating roof according to §63.7895(d)(1) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (d)(1) through (3) of this section.

(1) Each tank is equipped with an internal floating roof that meets the requirements in §63.1063(a) and you have records documenting the design.

(2) You will operate the internal floating roof according to the requirements in §63.1063(b).

(3) You have performed an initial visual inspection according to the requirements in §63.1063(d)(1) and you have a record of the inspection results.

(e) You must demonstrate initial compliance of each tank determined under paragraph (b) of this section to require Tank Level 2 controls and using an external floating roof according to §63.7895(d)(2) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (e)(1) through (3) of this section.

(1) Each tank is equipped with an external floating roof that meets the requirements in §63.1063(a) and you have records documenting the design.

(2) You will operate the external floating roof according to the requirements in §63.1063(b).

(3) You have performed an initial seal gap measurement inspection according to the requirements in §63.1063(d)(3) and you have records of the measurement results.

(f) You must demonstrate initial compliance of each tank determined under paragraph (b) of this section to require Tank Level 2 controls and using a fixed roof vented to a control device according to §63.7895(d)(3) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (f)(1) through (4) of this section.

(1) Each tank is equipped with a fixed roof and closure devices according to the requirements in §63.902(b) and (c) and you have records documenting the design.

(2) You have performed an initial visual inspection of fixed roof and closure devices for defects according to the requirements in §63.695(b)(3) and you have records documenting the inspection results.

(3) You will operate the fixed roof and closure devices according to the requirements in §63.685(g).

(4) You have met each applicable requirement for demonstrating initial compliance with the emission limitations and work practice standards for a closed vent system and control device in §63.7926.

(g) You must demonstrate initial compliance of each tank determined under paragraph (b) of this section to require Tank Level 2 controls and operates as a pressure tank according to §63.7895(d)(4) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (g)(1) and (2) of this section.

(1) Each tank is designed to operate as a pressure tank according to the requirements in §63.685(h), and you have records documenting the design.

(2) You will operate the pressure tank and according to the requirements in §63.685(h).

(h) You must demonstrate initial compliance of each tank determined under paragraph (b) of this section to require Tank Level 2 controls and using a permanent total enclosure vented to an enclosed combustion device according to §63.7895(d)(5) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (h)(1) and (2) of this section.

(1) You have submitted as part of your notification of compliance status a signed statement that you have performed the verification procedure according to the requirements in §63.685(i), and you have records of the supporting calculations and measurements.

(2) You have met each applicable requirement for demonstrating initial compliance with the emission limitations and work practice standards for a closed vent system and control device in §63.7926.

§ 63.7897 What are my inspection and monitoring requirements for tanks?

(a) You must visually inspect each of your tanks using Tank Level 1 controls for defects at least annually according to the requirements in §63.906(a).

(b) You must inspect and monitor each of your tanks using Tank Level 2 controls according to the requirements in paragraphs (b)(1) through (5), as applicable to your tanks.

(1) If you use a fixed roof with an internal floating roof according to §63.7895(d)(1), you must visually inspect the fixed roof and internal floating roof according to the requirements in §63.1063(d)(1) and (2).

(2) If you use an external floating roof according to §63.7895(d)(2), you must visually inspect the external floating roof according to the requirements in §63.1063(d)(1) and inspect the seals according the requirements in §63.1063(d)(2) and (3).

(3) If you use a fixed roof vented to a control device according to §63.7895(d)(3), you must meet requirements in paragraphs (b)(3)(i) and (ii) of this section.

(i) You must visually inspect the fixed roof and closure devices for defects according to the requirements in §63.695(b)(3).

(ii) You must monitor and inspect the closed vent system and control device according to the requirements in §63.7927 that apply to you.

(4) If you use a pressure tank according to §63.7895(d)(4), you must visually inspect the tank and its closure devices for defects at least annually to ensure they are operating according to the design requirements in §63.685(h).

(5) If you use a permanent total enclosure vented to an enclosed combustion device according to §63.7895(d)(5), you must meet requirements in paragraphs (b)(5)(i) and (ii) of this section.

(i) You must perform the verification procedure for the permanent total enclosure at least annually according to the requirements in §63.685(i).

(ii) You must monitor and inspect the closed vent system and control device according to the requirements in §63.7927 that apply to you.

§ 63.7898 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for tanks?

(a) You must demonstrate continuous compliance with the emissions limitations and work practice standards in §63.7895 applicable to your affected tanks by meeting the requirements in paragraphs (b) through (d) of this section.

(b) You must demonstrate continuous compliance with the requirement to determine the applicable tank control level specified in §63.7895(b) for each affected tank by meeting the requirements in paragraphs (b)(1) through (3) of this section.

(1) Keeping records of the tank design capacity according to the requirements in §63.1065(a).

(2) For tanks subject to §63.7886(b)(1)(ii) and not using Tank Level 2 controls, meeting the requirements in paragraphs (b)(2)(i) and (ii) of this section.

(i) Keeping records of the maximum HAP vapor pressure determined according to the procedures in §63.7944 for the remediation material placed in each affected tank.

(ii) Performing a new determination of the maximum HAP vapor pressure whenever changes to the remediation material managed in the tank could potentially cause the maximum HAP vapor pressure to increase to a level that is equal to or greater than the maximum HAP vapor pressure for the tank design capacity specified in Table 2. You must keep records of each determination.

(3) Keeping records to document compliance with the requirements of this subpart according to the requirements in §63.7952.

(c) You must demonstrate continuous compliance for each tank determined to require Tank Level 1 controls by meeting the requirements in paragraphs (c)(1) through (5) of this section.

(1) Operating and maintaining the fixed roof and closure devices according to the requirements in §63.902(c).

(2) Visually inspecting the fixed roof and closure devices for defects at least annually according to the requirements in §63.906(a).

(3) Repairing defects according to the requirements in §63.906(b).

(4) Recording the information specified in §63.907(a)(3) and (b).

(5) Keeping records to document compliance with the requirements of this subpart according to the requirements in §63.7952.

(d) You must demonstrate continuous compliance for each tank determined to require Tank Level 2 controls and using a fixed roof with an internal floating roof according to §63.7895(d)(1) by meeting the requirements in paragraphs (d)(1) through (5) of this section.

(1) Operating and maintaining the internal floating roof according to the requirements in §63.1063(b).

(2)Visually inspecting the internal floating roof according to the requirements in §63.1063(d)(1) and (2).

(3) Repairing defects according to the requirements in §63.1063(e).

(4) Recording the information specified in §63.1065(b) through (d).

(5) Keeping records to document compliance with the requirements of this subpart according to the requirements in §63.7952.

(e) You must demonstrate continuous compliance for each tank determined to require Tank Level 2 controls and using an external floating roof according to §63.7895(d)(2) by meeting the requirements in paragraphs (e)(1) through (5) of this section.

(1) Operating and maintaining the external floating roof according to the requirements in §63.1063(b).

(2) Visually inspecting the external floating roof according to the requirements in §63.1063(d)(1) and inspecting the seals according the requirements in §63.1063(d)(2) and (3).

(3) Repairing defects according to the requirements in §63.1063(e).

(4) Recording the information specified in §63.1065(b) through (d).

(5) Keeping records to document compliance with the requirements of this subpart according to the requirements in §63.7952.

(f) You must demonstrate continuous compliance for each tank determined to require Tank Level 2 controls and using a fixed roof vented to a control device according to §63.7895(d)(3) by meeting the requirements in paragraphs (f)(1) through (6) of this section.

(1) Operating and maintaining the fixed roof and closure devices according to the requirements in §63.685(g).

(2) Visually inspecting the fixed roof and closure devices for defects at least annually according to the requirements in §63.695(b)(3)(i).

(3) Repairing defects according to the requirements in §63.695(b)(4).

(4) Recording the information specified in §63.696(e).

(5) Meeting each applicable requirement for demonstrating continuous compliance with the emission limitations and work practice standards for a closed vent system and control device in §63.7928.

(6) Keeping records to document compliance with the requirements of this subpart according to the requirements in §63.7952.

(g) You must demonstrate continuous compliance for each tank determined to require Tank Level 2 controls and operated as a pressure tank according to §63.7895(d)(4) by meeting the requirements in paragraphs (g)(1) through (3) of this section.

(1) Operating and maintaining the pressure tank and closure devices according to the requirements in §63.685(h).

(2) Visually inspecting each pressurized tank and closure devices for defects at least annually to ensure they are operating according to the design requirements in §63.685(h), and recording the results of each inspection.

(3) Keeping records to document compliance with the requirements of this subpart according to the requirements in §63.7952.

(h) You must demonstrate continuous compliance for each tank determined to require Tank Level 2 controls and using a permanent total enclosure vented to an enclosed combustion device according to §63.7895(d)(5) by meeting the requirements in paragraphs (h)(1) through (4) of this section.

(1) Performing the verification procedure for the enclosure annually according to the requirements in §63.685(i).

(2) Recording the information specified in §63.696(f).

(3) Meeting each applicable requirement for demonstrating continuous compliance with the emissions limitations and work practice standards for a closed vent system and control device in §63.7928.

(4) Keeping records to document compliance with the requirements of this subpart according to the requirements in §63.7952.

Containers

§ 63.7900 What emissions limitations and work practice standards must I meet for containers?

(a) You must control HAP emissions from each new and existing container subject to §63.7886(b)(1)(ii) according to emissions limitations and work practice standards in this section that apply to your affected containers.

(b) For each container having a design capacity greater than 0.1 m^3 you must meet the requirements in paragraph (b)(1) or (2) of this section that apply to your container except at the times the container is used for treatment of remediation material by a waste stabilization process, as defined in § 63.7957. As an alternative for any container subject to this paragraph, you may choose to meet the requirements in paragraph (d) of this section.

(1) If the design capacity of your container is less than or equal to 0.46 m^3, then you must use controls according to the standards for Container Level 1 controls as specified in §63.922. As an alternative, you may choose to use controls according to either the standards for Container Level 2 controls as specified in §63.923.

(2) If the design capacity of your container is greater than 0.46 m^3, then you must use controls according to the standards for Container Level 2 controls as specified in §63.923 except as provided for in paragraphs (3) and (4) of this section.

(3) As an alternative to meeting the standards in paragraph (2) of this section for containers with a capacity greater than 0.46 m^3, if you determine that either of the conditions in paragraphs (b)(3)(i) or (ii) apply to the remediation material placed in your container, then you may use controls according to the standards for Container Level 1 controls as specified in §63.922.

(i) Vapor pressure of every organic constituent in the remediation material placed in your container is less than 0.3 kPa at 20EC; or

(ii) Total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20EC in the remediation material placed in your container is less than 20 percent by weight.

(c) At times when a container having a design capacity greater than 0.1 m^3 is used for treatment of an remediation material by a waste stabilization process as defined in § 63.7957, you must control air emissions from the container during the process whenever the remediation material in the container is exposed to the atmosphere according to the standards for Container Level 3 controls as specified in §63.924. You must meet the emissions limitations and work practice standards in §63.7925 that apply to your closed vent system and control device.

(d) As an alternative to meeting the requirements in paragraph (b) of this section, you may choose to use controls on your container according to the standards for Container Level 3 controls as specified in §63.924. You must meet the emissions limitations and work practice standards in §63.7925 that apply to your closed vent system and control device.

(e) As provided in §63.6(g), you may request approval from the EPA to use an alternative to the work practice standards in this section that apply to your containers. If you request for permission to use an alternative to the work practice standards, you must submit the information described in §63.6(g)(2).

§ 63.7901 How do I demonstrate initial compliance with the emissions limitations and work practice standards for containers?

(a) You must demonstrate initial compliance with the emissions limitations and work practice standards in §63.7990 that apply to your affected containers by meeting the requirements in paragraphs (b) through (e) of this section, as applicable to your containers.

(b) You have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (b)(1) and (2) of this section.

(1) You have determined the applicable container control levels specified in §63.7990 for the containers to be used for your site remediation.
(2) You have determined and recorded the maximum vapor pressure or total organic concentration for the remediation material placed in containers with a design capacity greater than 0.46 m^3, and do not used Container Level 2 or Level 3 controls.

(c) You must demonstrate initial compliance of each container determined under paragraph (b) of this section to require Container Level 1 controls if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (c)(1) and (2) of this section.

(1) Each container using Container Level 1 controls will be one of the containers specified in §63.922(b).

(2) You will operate each container cover and closure device according to the requirements in §63.922(d).

(d) You must demonstrate initial compliance of each container determined under paragraph (b) of this section to require Container Level 2 controls if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (d)(1) through (4) of this section.

(1) Each container using Container Level 2 controls will be one of the containers specified in §63.923(b).

(2) You will transfer remediation materials into and out of each container according to the procedures in §63.923(d).

(3) You will operate and maintain the container covers and closure devices according to the requirements in §63.923(d).

(4) You have records that the container meets the applicable U.S. Department of Transportation regulations, or you have conducted an initial test of each container for no detectable organic emissions using the procedures in §63.925(a), and have records documenting the test results, or you have demonstrated within the last 12 months that each container is vapor-tight according to the procedures in §63.925(a) and have records documenting the test results.

(e) You must demonstrate initial compliance of each container determined under paragraph (b) of this section to require Container Level 3 controls if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (e)(1) and (2) of this section.

(1) For each permanent total enclosure you use to comply with §63.7900, you have performed the verification procedure according to the requirements in §63.924(c)(1), and prepare records of the supporting calculations and measurements.
(2) You have met each applicable requirement for demonstrating initial compliance with the emission limitations and work practice standards for a closed vent system and control device in §63.7926.

§ 63.7902 What are my inspection and monitoring requirements for containers?

(a) You must inspect each container using Container Level 1 or Container Level 2 controls according to the requirements in §63.926(a).

(b) If you use Container Level 3 controls, you must meet requirements in paragraphs (b)(1) and (2) of this section, as applicable to your site remediation.

(1) You must perform the verification procedure for each permanent total enclosure annually according to the requirements in §63.924(c)(1).

(2) You must monitor and inspect each closed vent system and control device according to the requirements in §63.7927 that apply to you.

§ 63.7903 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for containers?

(a) You must demonstrate continuous compliance with the emissions limitations and work practice standards in §63.7990 applicable to your affected containers by meeting the requirements in paragraphs (b) through (e) of this section.

(b) You must demonstrate continuous compliance with the requirement to determine the applicable container control level specified in §63.7990(b) for each affected tank by meeting the requirements in paragraphs (b)(1) through (3) of this section.

(1) Keeping records of the quantity and design capacity for each type of container used for your site remediation and subject to §63.7886(b)(1)(ii).

(2) For containers subject to §63.7886(b)(1)(ii) with a design capacity greater than 0.46 m^3 and not using Container Level 2 or Container Level 3 controls, meeting the requirements in paragraphs (b)(2)(i) and (ii) of this section.

(i) Keeping records of the maximum vapor pressure or total organic concentration for the remediation material placed in the containers, as applicable to the conditions in §63.7900(b)(3)(i) or (ii) for which your containers qualify to use Container Level 1 controls.

(ii) Performing a new determination whenever changes to the remediation material placed in the containers could potentially cause the maximum vapor pressure or total organic concentration to increase to a level that is equal to or greater than the conditions specified in §63.7900(b)(3)(i) or (ii), as applicable to your containers. You must keep records of each determination.
(3) Keeping records to document compliance with the requirements according to the requirements in §63.7952.

(c) You must demonstrate continuous compliance for each container determined to require Container Level 1 controls by meeting the requirements in paragraphs (c)(1) through (5) of this section.

(1) Operating and maintaining covers for each container according to the requirements in §63.922(d).

(2) Inspecting each container annually according to the requirements in §63.926(a)(2).

(3) Emptying or repairing each container according to the requirements in §63.926(a)(3).

(4) Keeping records of an inspection that includes the information in paragraphs (a)(4)(i) and (ii) of this section.

(i) Date of each inspection; and

(ii) If a defect is detected during and inspection, the location of the defect, a description of the defect, the date of detection, the corrective action taken to repair the defect, and if repair is delayed, the reason for any delay and the date completion of the repair is expected.

(5) Keeping records to document compliance with the requirements according to the requirements in §63.7952.

(d) You must demonstrate continuous compliance for each container determined to require Container Level 2 controls by meeting the requirements in paragraphs (d)(1) through (6) of this section.

(1) Transferring remediation material in and out of the container according to the requirements in §63.923(c).

(2) Operating and maintaining container covers according to the requirements in §63.923(d).

(3) Inspecting each container annually according to the requirements in §63.926(a)(2).

(4) Emptying or repairing containers according to the requirements in §63.926(a)(3).

(5) Keeping records of each inspection that include the information in paragraphs (d)(5)(i) and (ii) of this section.

(i) Date of each inspection; and

(ii) If a defect is detected during and inspection, the location of the defect, a description of the defect, the date of detection, the corrective action taken to repair the defect, and if repair is delayed, the reason for any delay and the date completion of the repair is expected.

(6) Keeping records to document compliance with the requirements of this subpart according to the requirements in §63.7952.

(e) You must demonstrate continuous compliance for each container determined to require Container Level 3 controls by meeting the requirements in paragraphs (e)(1) through (4) of this section.

(1) Performing the verification procedure for the enclosure annually according to the requirements in §63.685(i).

(2) Recording the information specified in §63.696(f).

(3) Meeting each applicable requirement for demonstrating continuous compliance with the emissions limitations and work practice standards for a closed vent system and control device in §63.7928.

(4) Keeping records to document compliance with the requirements of this subpart according to the requirements in §63.7952.

Surface Impoundments

§ 63.7905 What emissions limitations or work practice standards must I meet for surface impoundments?

(a) You must control HAP emissions from each new and existing surface impoundment subject to §63.7886(b)(1)(iii) according to emissions limitations and work practice standards in this section that apply to your affected surface impoundments.

(b) For each affected surface impoundment, you must install and operate air pollution controls that meet either of the options in paragraphs (b)(1) or (2) of this section.

(1) Install and operate a floating membrane cover according to the requirements in §63.942; or

(2) Install and operate a cover vented through a closed vent system to a control device according to the requirements in §63.943. You must meet the emissions limitations and work practice standards in §63.7925 that apply to your closed vent system and control device.

(c) As provided in §63.6(g), you may request approval from the EPA to use an alternative to the work practice standards in this section that apply to your surface impoundments. If you request for permission to use an alternative to the work practice standards, you must submit the information described in §63.6(g)(2).

§ 63.7906 How do I demonstrate initial compliance with the emissions limitations or work practice standards for surface impoundments?

(a) You must demonstrate initial compliance with the emissions limitations and work practice standards in §63.7905 that apply to your affected surface impoundments by meeting the requirements in paragraphs (b) and (c) of this section, as applicable to your surface impoundments.

(b) You must demonstrate initial compliance of each surface impoundment using a floating membrane cover according to §63.7905(b)(1) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (b)(1) through (3) of this section.

(1) You have installed a floating membrane cover and closure devices that meet the requirements in §63.942(b), and you have records documenting the design and installation.

(2) You will operate the cover and closure devices according to the requirements in §63.942(c).

(3) You have performed an initial visual inspection of each surface impoundment and closure devices according to the requirements in §63.946(a), and you have records documenting the inspection results.

(c) You must demonstrate initial compliance of each surface impoundment using a cover vented to a control device according to §63.7905(b)(2) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (c)(1) through (4) of this section.

(1) You have installed a cover and closure devices that meet the requirements in §63.943(b), and have records documenting the design and installation.

(2) You will operate the cover and closure devices according to the requirements in §63.943(c).

(3) You have performed an initial visual inspection of each cover and closure devices according to the requirements in §63.946(b), and have records documenting the inspection results.

(4) You have met each applicable requirement for demonstrating initial compliance with the emission limitations and work practice standards for a closed vent system and control device in §63.7926.

§ 63.7907 What are my inspection and monitoring requirements for surface impoundments?

(a) If you use a floating membrane cover according to §63.7905(b)(1), you must visually inspect the floating membrane cover and its closure devices at least annually according to the requirements in §63.946(a).

(b) If you use a cover vented to a control device according to §63.7905(b)(2), you must meet requirements in paragraphs (b)(1) and (2) of this section.

(1) You must visually inspect the cover and its closure devices for defects according to the requirements in §63.946(b).

(2) You must monitor and inspect the closed vent system and control device according to the requirements in §63.7927 that apply to you.

§ 63.7908 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for surface impoundments?

(a) You must demonstrate continuous compliance with the emissions limitations and work practice standards in §63.7905 applicable to your affected surface impoundments by meeting the requirements in paragraphs (b) and (c) of this section as applicable to your surface impoundments.

(b) You must demonstrate continuous compliance for each surface impoundment using a floating membrane cover according to §63.7905(b)(1) by meeting the requirements in paragraphs (b)(1) through (5) of this section.

(1) Operating and maintaining the floating membrane cover and closure devices according to the requirements in §63.942(c).

(2) Visually inspecting the floating membrane cover and closure devices for defects at least annually according to the requirements in §63.946(a).

(3) Repairing defects according to the requirements in §63.946(c).

(4) Recording the information specified in §63.947(a)(2) and (a)(3).

(5) Keeping records to document compliance with the requirements according to the requirements in §63.7952.

(c) You must demonstrate continuous compliance for each surface impoundment using a cover vented to a control device according to §63.7905(b)(2) by meeting the requirements in paragraphs (c)(1) through (6) of this section.

(1) Operating and maintaining the cover and its closure devices according to the requirements in §63.943(c).

(2) Visually inspecting the cover and its closure devices for defects at least annually according to the requirements in §63.946(b).

(3) Repairing defects according to the requirements in §63.946(c).

(4) Recording the information specified in §63.947(a)(2) and (a)(3).

(5) Meeting each applicable requirement for demonstrating continuous compliance with the emission limitations and work practice standards for a closed vent system and control device in §63.7928.

(6) Keeping records to document compliance with the requirements according to the requirements in §63.7952.

Separators

§ 63.7910 What emissions limitations and work practice standards must I meet for separators?

(a) You must control HAP emissions from each new and existing oil-water separator and organic-water separator subject to §63.7886(b)(1)(iv) according to emissions limitations and work practice standards in this section that apply to your affected separators.

(b) For each affected separator, you must install and operate air pollution controls that meet one of the options in paragraphs (b)(1) through (3) of this section.

(1) Install and operate a floating roof according to the requirements in §63.1043. For portions of the separator where it is infeasible to install and operate a floating roof, such as over a weir mechanism, you must comply with the requirements specified in paragraph (b)(2) of this section.

(2) Install and operate a fixed roof vented through a closed vent system to a control device according to the requirements in §63.1044. You must meet the emissions limitations and work practice standards in §63.7925 that apply to your closed vent system and control device.

(3) Install and operate a pressurized separator according to the requirements in §63.1045.

(c) As provided in §63.6(g), you may request approval from the EPA to use an alternative to the work practice standards in this section that apply to your separators. If you request for permission to use an alternative to the work practice standards, you must submit the information described in §63.6(g)(2).

§ 63.7911 How do I demonstrate initial compliance with the emissions limitations and work practice standards for separators?

(a) You must demonstrate initial compliance with the emissions limitations and work practice standards in §63.7910 that apply to your affected separators by meeting the requirements in paragraphs (b) through (d) of this section, as applicable to your separators.

(b) You must demonstrate initial compliance of each separator using a floating roof according to §63.7910(b)(1) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (b)(1) through (4) of this section.

(1) You have installed a floating roof and closure devices that meet the requirements in §63.1043(b), and you have records documenting the design and installation.

(2) You will operate the floating roof and closure devices according to the requirements in §63.1043(c).

(3) You have performed an initial seal gap measurement inspection using the procedures in §63.1046(b), and you have records documenting the measurement results.

(4) You have performed an initial visual inspection of the floating roof and closure devices for defects according to the requirements in §63.1047(b)(2), and you have records documenting the inspection results.

(5) For any portions of the separator using a fixed roof vented to a control device according to §63.7910(b)(1), you have met the requirements in paragraphs (c)(1) through (4) of this section.

(c) You must demonstrate initial compliance of each separator using a fixed roof vented to a control device according to §63.7910(b)(2) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (c)(1) through (4) of this section.

(1) You have installed a fixed roof and closure devices that meet the requirements in §63.1042(b), and you have records documenting the design and installation.

(2) You will operate the fixed roof and its closure devices according to the requirements in §63.1042(c).

(3) You have performed an initial visual inspection of the fixed roof and closure devices for defects according to the requirements in §63.1047(a).

(4) You have met each applicable requirement for demonstrating initial compliance with the emission limitations and work practice standards for a closed vent system and control device in §63.7926.

(d) You must demonstrate initial compliance of each pressurized separator that operates as a closed system according to §63.7910(b)(3) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (d)(1) and (2) of this section.

(1) You have installed a pressurized separator that operates as a closed system according to the requirements in §63.1045(b)(1) and (b)(2), and you have records of the design and installation.
(2) You will operate the pressurized separator as a closed system according to the requirements in §63.1045(b)(3).

§ 63.7912 What are my inspection and monitoring requirements for separators?

(a) If you use a floating roof according to §63.7910(b)(1), you must meet requirements in paragraphs (a)(1) and (2) of this section.

(1) Measure the seal gaps at least annually according to the requirements in §63.1047(b)(1).

(2) Visually inspect the floating roof at least annually according to the requirements in §63.1047(b)(2).

(b) If you use a cover vented to a control device according to §63.7910(b)(1) or (2), you must meet requirements in paragraphs (b)(1) and (2) of this section.

(1) You must visually inspect the cover and its closure devices for defects according to the requirements in §63.1047(c).

(2) You must monitor and inspect the closed vent system and control device according to the requirements in §63.7927 that apply to you.

(c) If you use a pressurized separator that operates as a closed system according to §63.7910(b)(3), you must visually inspect each pressurized separator and closure devices for defects at least annually to ensure they are operating according to the design requirements in §63.1045(b).

§ 63.7913 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for separators?

(a) You must demonstrate continuous compliance with the emissions limitations and work practice standards in §63.7910 applicable to your affected separators by meeting the requirements in paragraphs (b) through (d) of this section as applicable to your surface impoundments.

(b) You must demonstrate continuous compliance for each separator using a floating roof according to §63.7910(b)(1) by meeting the requirements in paragraphs (b)(1) through (6) of this section.

(1) Operating and maintaining the floating roof according to the requirements in §63.1043(b).

(2) Performing seal gap measurement inspections at least annually according to the requirements in §63.1047(b)(1).

(3) Visually inspecting the floating roof at least annually according to the requirements in §63.1047(b)(2).

(4) Repairing defects according to the requirements in §63.1047(d).

(5) Recording the information specified in §63.1048(a) and (b).

(6) Keeping records to document compliance with the requirements according to the requirements in §63.7952.

(c) You must demonstrate continuous compliance for each separator using a cover vented to a control device according to §63.7905(b)(1) or (2) by meeting the requirements in paragraphs (c)(1) through (6) of this section.

(1) Operating and maintaining the fixed roof and its closure devices according to the requirements in §63.1042.

(2) Performing visual inspections of the fixed roof and its closure devices for defects at least annually according to the requirements in §63.1047(a).

(3) Repairing defects according to the requirements in §63.1047(d).

(4) Recording the information specified in §63.1048(a).

(5) Meeting each applicable requirement for demonstrating continuous compliance with the emission limitations and work practice standards for a closed vent system and control device in §63.7928.

(6) Keeping records to document compliance with the requirements of this subpart according to the requirements in §63.7952.

(d) You must demonstrate continuous compliance for each pressurized separator operated as a closed system according to §63.7910(b)(3) by meeting the requirements in paragraphs (d)(1) and (2) of this section.

(1) Operating the pressurized separator at all times according to the requirements in §63.1045.

(2) Visually inspecting each pressurized tank and closure devices for defects at least annually to ensure they are operating according to the design requirements in §63.1045(b), and recording the results of each inspection.

Transfer Systems

§ 63.7915 What emissions limitations and work practice standards must I meet for transfer systems?

(a) You must control HAP emissions from each new and existing transfer system subject to §63.7886(b)(1)(v) according to emissions limitations and work practice standards in this section that apply to your affected transfer systems.

(b) For each affected transfer system that is an individual drain system as defined in §63.7957, you must install and operate controls according to the requirements in §63.962.

(c) For each affected transfer system that is not an individual drain system as defined in §63.7957, you must use one of the transfer systems specified in paragraphs (c)(1) through (3) of this section.

(1) A transfer system that uses covers according to the requirements in §63.689(d).

(2) A transfer system that consists of continuous hard-piping. All joints or seams between the pipe sections shall be permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed flange).

(3) A transfer system that is enclosed and vented through a closed vent system to a control device according to the requirements specified in paragraphs (c)(3)(i) and (ii) of this section.

(i) The transfer system is designed and operated such that an internal pressure in the vapor headspace in the enclosure is maintained at a level less than atmospheric pressure when the control device is operating, and

(ii) The closed vent system and control device are designed and operated to meet the emissions limitations and work practice standards in §63.7925 that apply to your closed vent system and control device.

(d) As provided in §63.6(g), you may request approval from the EPA to use an alternative to the work practice standards in this section that apply to your transfer systems. If you request for permission to use an alternative to the work practice standards, you must submit the information described in §63.6(g)(2).

§ 63.7916 How do I demonstrate initial compliance with the emissions limitations and work practice standards for transfer systems?

(a) You must demonstrate initial compliance with the emissions limitations and work practice standards in §63.7915 that apply to your affected transfer systems by meeting the requirements in paragraphs (b) through (e) of this section, as applicable to your transfer systems.

(b) You must demonstrate initial compliance of each individual drain system using controls according to §63.7915(b) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (b)(1) through (3) of this section.

(1) You have installed air emission controls for each individual drain system and junction box according to the requirements in §63.962(a) and (b), and you have records documenting the installation and design.

(2) You will operate the air emission controls according to the requirements in §63.962(b)(5).

(3) You have performed an initial visual inspection of each individual drain system according to the requirements in §63.964(a), and you have records documenting the inspection results.

(c) You must demonstrate initial compliance of each transfer system using covers according to §63.7915(c)(1) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (c)(1) through (3) of this section.

(1) Each transfer system is equipped with covers and closure devices according to the requirements in §63.689(d)(1) through (4), and you have records documenting the design and installation.

(2) You have performed an initial inspection of each cover and its closure devices for defects according to the requirements in §63.695(d)(1) through (5), and you have records documenting the inspection results.

(3) You will operate each cover and its closure devices according to the requirements in §63.689(5).

(d) You must demonstrate initial compliance of each transfer system that consists of hard piping according to §63.7915(c)(2) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (d)(1) and (2) of this section.

(1) You have installed a transfer system that consists entirely of hard piping and meets the requirements in §63.7915(c)(2), and you have records documenting the design and installation.

(2) You have performed an initial inspection of the entire transfer system to verify that all joints or seams between the pipe sections are permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed flange), and you have records documenting the inspection results.

(e) You must demonstrate initial compliance of each transfer system that is enclosed and vented to a control device according to §63.7915(e)(3) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (e)(1) and (2) of this section.

(1) You have installed a transfer system that is designed and operated such that an internal pressure in the vapor headspace in the enclosure is maintained at a level less than atmospheric pressure when the control device is operating, and you have records documenting the design and installation.

(2) You have met each applicable requirement for demonstrating initial compliance with the emission limitations and work practice standards for a closed vent system and control device in §63.7926.

§ 63.7917 What are my inspection and monitoring requirements for transfer systems?

(a) If you operate an individual drain system as a transfer system according to §63.7915(b), you must visually inspect each individual drain system at least annually according to the requirements in §63.964(a).

(b) If you operate a transfer system using covers according to §63.7915(c)(1), you must inspect each cover and its closure devices for defects according to the requirements in §63.695(d)(1) through (5).

(c) If you operate a transfer system consisting of hard piping according to §63.7915(c)(2), you must annually inspect the entire pipeline and all joints for leaks and other defects. In the event that a defect is detected, you must repair the leak or defect according to the requirements of paragraph (e) of this section.

(d) If you operate a transfer system that is enclosed and vented to a control device according to §63.7915(c)(3), you must meet requirements in paragraphs (d)(1) and (2) of this section.

(1) You must annually inspect all enclosure components (e.g., enclosure sections, closure devices, fans) for defects that would prevent an internal pressure in the vapor headspace in the enclosure from

continuously being maintained at a level less than atmospheric pressure when the control device is operating. In the event that a defect is detected, you must repair the defect according to the requirements of paragraph (e) of this section.

(2) You must monitor and inspect the closed vent system and control device according to the requirements in §63.7927 that apply to you.

(e) If you are subject to paragraph (c) or (d) of this section, you must repair all detected defects as specified in paragraphs (e)(1) through (3) of this section.

(1) You must make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in paragraph (e)(2) of this section.

(2) Repair of a defect may be delayed beyond 45 calendar days if you determine that repair of the defect requires emptying or temporary removal from service of the transfer system and no alternative transfer system is available at the site to accept the material normally handled by the system. In this case, you must repair the defect the next time the process or unit that is generating the material handled by the transfer system stops operation. Repair of the defect must be completed before the process or unit resumes operation.

(3) You must maintain a record of the defect repair according to the requirements specified in §63.7952.

§ 63.7918 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for transfer systems?

(a) You must demonstrate continuous compliance with the emissions limitations and work practice standards in §63.7915 applicable to your affected transfer system by meeting the requirements in paragraphs (b) through (e) of this section as applicable to your transfer systems.

(b) You must demonstrate continuous compliance for each individual drain system using controls according to §63.7915(b) by meeting the requirements in paragraphs (b)(1) through (5) of this section.

(1) Operating and maintaining the air emission controls for individual drain systems according to the requirements in §63.962.

(2) Visually inspecting each individual drain system at least annually according to the requirements in §63.964(a).

(3) Repairing defects according to the requirements in §63.964(b).

(4) Recording the information specified in §63.965(a).

(5) Keeping records to document compliance with the requirements of this subpart according to the requirements in §63.7952.

(c) You must demonstrate continuous compliance for each transfer system using covers according to §63.7915(c)(1) by meeting the requirements in paragraphs (c)(1) through (4) of this section.

(1) Operating and maintaining each cover and its closure devices according to the requirements in §63.689(d)(1) through (5).

(2) Performing inspections of each cover and its closure devices for defects at least annually according to the requirements in §63.695(d)(1) through (5).

(3) Repairing defects according to the requirements in §63.695(5).

(4) Keeping records to document compliance with the requirements of this subpart according to the requirements in §63.7952.

(d) You must demonstrate continuous compliance for each transfer system that consists of hard piping according to §63.7915(c)(2) by meeting the requirements in paragraphs (d)(1) through (4) of this section.

(1) Operating and maintaining the pipeline to ensure that all joints or seams between the pipe sections remain permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed flange).

(2) Inspecting the pipeline for defects at least annually according to the requirements in §63.7918(c).

(3) Repairing defects according to the requirements in §63.7918(e).

(4) Keeping records to document compliance with the requirements of this subpart according to the requirements in §63.7952.

(e) You must demonstrate continuous compliance for each transfer system that is enclosed and vented to a control device according to §63.7915(e)(3) by meeting the requirements in paragraphs (e)(1) through (5) of this section.

(1) Operating and maintaining the enclosure to ensure that the internal pressure in the vapor headspace in the enclosure is maintained continuously at a level less than atmospheric pressure when the control device is operating.

(2) Inspecting the enclosure and its closure devices for defects at least annually according to the requirements in §63.7918(d).

(3) Repairing defects according to the requirements in §63.7918(e).

(4) Meeting each applicable requirement for demonstrating continuous compliance with the emission limitations and work practice standards for a closed vent system and control device in §63.7928.

(5) Keeping records to document compliance with the requirements according to the requirements in §63.7952.

Equipment Leaks

§ 63.7920 What emissions limitations and work practice standards must I meet for equipment leaks?

(a) You must control HAP emissions from each new and existing equipment subject to §63.7887 according to emissions limitations and work practice standards in this section that apply to your affected equipment.

(b) For your affected equipment, you must meet the requirements in either paragraph (b)(1) or (2) of this section.

(1) Control equipment leaks according to all applicable requirements under 40 CFR part 63, subpart TT--National Emission Standards for Equipment Leaks--Control Level 1; or

(2) Control equipment leaks according to all applicable requirements under 40 CFR part 63, subpart UU--National Emission Standards for Equipment Leaks - Control Level 2.

(c) If you use a closed vent system and control device to comply with this section, as an alternative to meeting the standards in §63.1015 or §63.1034 for closed vent systems and control devices, you may elect to meet the requirements in §§63.7925 through 63.7928 that apply to your closed vent system and control device.

(d) As provided in §63.6(g), you may request approval from the EPA to use an alternative to the work practice standards in this section that apply to your equipment. If you request for permission to use an alternative to the work practice standards, you must submit the information described in §63.6(g)(2).

§ 63.7921 How do I demonstrate initial compliance with the emissions limitations and work practice standards for equipment leaks?

(a) You must demonstrate initial compliance with the emissions limitations and work practice standards in §63.7920 that apply to your affected equipment by meeting the requirements in paragraphs (b) and (c) of this section, as applicable to your affected sources.

(b) If you control equipment leaks according to the requirements under §63.7920(b)(1), you must demonstrate initial compliance if you have met the requirements in paragraphs (b)(1) and (2) of this section.

(1) You include the information required in §63.1018(a)(1) in your notification of compliance status report.

(2) You have submitted as part of your notification of compliance status a signed statement that:

(i) You will meet the requirements in §§63.1002 through 63.1016 that apply to your affected equipment.

(ii) You have identified the equipment subject to control according to the requirements in §63.1003, including equipment designated as unsafe to monitor, and have records supporting the determinations with a written plan for monitoring the equipment according to the requirements in §63.1003(c)(4).

(c) If you control equipment leaks according to the requirements under §63.7920(b)(2), You must demonstrate initial compliance if you have met the requirements in paragraphs (c)(1) and (2) of this section.

(1) You have included the information required in §63.1039(a) in your notification of compliance status report.

(2) You have submitted as part of your notification of compliance status a signed statement that:

(i) You will meet the requirements in §§63.1021 through 63.1037 that apply to your affected equipment.

(ii) You have identified the equipment subject to control according to the requirements in §63.1022, including equipment designated as unsafe to monitor, and have records supporting the determinations with a written plan for monitoring the equipment according to the requirements in §63.1022(c)(4).

§ 63.7922 How do I demonstrate continuous compliance with the work practice standards for equipment leaks?

(a) You must demonstrate continuous compliance with the emissions limitations and work practice standards in §63.7920 applicable to your affected equipment by meeting the requirements in paragraphs (b) through (d) of this section that apply to you.

(b) If you control equipment leaks according to the requirements under §63.7920(b)(1), you must demonstrate continuous compliance by inspecting, monitoring, repairing, and maintaining records according to the requirements in §§63.1002 through 63.1018 that apply to your affected equipment.

(c) If you control equipment leaks according to the requirements under §63.7920(b)(2), you must demonstrate continuous compliance by inspecting, monitoring, repairing, and maintaining records according to the requirements in §§63.1021 through 63.1039 that apply to your affected equipment.

(d) You must keep records to demonstrate compliance with the requirements according to the requirements in §63.7952.

Closed Vent Systems and Control Devices

§ 63.7925 What emissions limitations and work practice standards must I meet for closed vent systems and control devices?

(a) For each closed-vent system and control device you use to comply with requirements in §§63.7890 through 63.7922, as applicable to your affected sources, you must meet the emissions limitations and work practice standards in this section.

(b) Whenever gases or vapors containing HAP are vented through the closed-vent system to the control device, the control device must be operating except at those times listed in either paragraph (b)(1) or (2) of this section.

(1) The control device may be bypassed for the purpose of performing planned routine maintenance of the closed-vent system or control device in situations when the routine maintenance cannot be performed during periods that the emission point vented to the control device is shutdown. On an annual basis, the total time that the closed-vent system or control device is bypassed to perform routine maintenance must not exceed 240 hours per each calendar year.

(2) The control device may be bypassed for the purpose of correcting a malfunction of the closed-vent system or control device. You must perform the adjustments or repairs necessary to correct the malfunction as soon as practicable after the malfunction is detected.

(c) For each closed vent system, you must meet the work practice standards in §63.693(c).

(d) For each control device other than a flare or a control device used to comply with the facility-wide process vent emission limits in §63.7890(b), you must control HAP emissions to meet either of the emissions limits in paragraphs (d)(1) or (2) of this section except as provided for in paragraph (f) of this section.

(1) Reduce emissions of total HAP listed in Table 1 of this subpart or TOC (minus methane and ethane) from each control device by 95 percent by weight; or

(2) Limit the concentration of total HAP listed in Table 1 of this subpart or TOC (minus methane and ethane) from each combustion control device (a thermal incinerator, catalytic incinerator, boiler, or process heater) to 20 ppmv or less on a dry basis corrected to 3 percent oxygen.

(e) If you use a flare for your control device, then you must meet the requirements for flares in §63.11(b).

(f) If you use a process heater or boiler for your control device, then as alternative to meeting the emissions limits in paragraph (d) of this section you may choose to comply with one of the work practice standards in paragraphs (f)(1) through (3) of this section.

(1) Introduce the vent stream into the flame zone of the boiler or process heater and maintain the conditions in the combustion chamber at a residence time of 0.5 seconds or longer and at a temperature of 760EC or higher; or

(2) Introduce the vent stream with the fuel that provides the predominate heat input to the boiler or process heater (i.e., the primary fuel); or

(3) Introduce the vent stream to a boiler or process heater for which you either have been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H--Hazardous Waste Burned in Boilers and Industrial Furnaces; or has certified compliance with the interim status requirements of 40 CFR part 266, subpart H.

(g) For each control device other than a flare, you must meet each operating limit in paragraphs (g)(1) through (6) of this section that applies to your control device.

(1) If you use a regenerable carbon adsorption system, you must:

(i) Maintain the hourly average total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the stream mass flow established in the design evaluation or performance test.

(ii) Maintain the hourly average temperature of the adsorption bed during regeneration (except during the cooling cycle) greater than or equal to the temperature established during the design evaluation or performance test.

(iii) Maintain the hourly average temperature of the adsorption bed after regeneration (and within 15 minutes after completing any cooling cycle) less than or equal to the temperature established during the design evaluation.

(iv) Maintain the frequency of regeneration greater than or equal to the frequency established during the design evaluation.

(2) If you use a nonregenerable carbon adsorption system, you must maintain the hourly average temperature of the adsorption bed less than or equal to the temperature established during the design evaluation or performance test.

(3) If you use a condenser, you must maintain the daily average condenser exit temperature less than or equal to the temperature established during the design evaluation or performance test.

(4) If you use a thermal incinerator, you must maintain the daily average firebox temperature greater than or equal to the temperature established in the design evaluation or during the performance test.

(5) If you use a catalytic incinerator, you must maintain the daily average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the performance test or design evaluation.

(6) If you use a boiler or process heater to comply with an emission limit in paragraph (d) of this section, you must maintain the daily average firebox temperature within the operating level established during the design evaluation or performance test.

(h) If you use a carbon adsorption system as your control, you must meet each work practice standard in paragraphs (h)(1) through (3) of this section that applies to your control device.

(1) If you use a regenerable carbon adsorption system, you must:

(i) Replace the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation.

(ii) Follow the disposal requirements for spent carbon in §63.693(d)(4).

(2) If you use a nonregenerable carbon adsorption system, you must:

(i) Replace the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation.

(ii) Meet the disposal requirements for spent carbon in §63.693(d)(4)(ii).

(3) If you use a nonregenerative carbon adsorption system, you may choose to comply with the requirements in paragraphs (h)(3)(i) and (ii) of this section as an alternative to the requirements in paragraph (h)(2) of this section. You must:

(i) Immediately replace the carbon canister or carbon in the control device when the monitoring device indicates breakthrough has occurred according to the requirements in §63.693(d)(4)(iii)(A), or replace the carbon canister or carbon in the control device at regular intervals according to the requirements in §63.693(d)(4)(iii)(B).

(ii) Follow the disposal requirements for spent carbon in §63.693(d)(4)(ii).

(i) If you use a catalytic incinerator, you must replace the existing catalyst bed with a bed that meets the replacement specifications before the age of the bed exceeds the maximum allowable age established in the design evaluation or during the performance test.

(j) As provided in §63.6(g), you may request approval from the EPA to use an alternative to the work practice standards in this section that apply to your closed vent systems and control devices. If you request for permission to use an alternative to the work practice standards, you must submit the information described in §63.6(g)(2).

§ 63.7926 How do I demonstrate initial compliance with the emission limitations and work practice standards for closed vent systems and control devices?

(a) You must demonstrate initial compliance with the emissions limitations and work practice standards in this subpart applicable to your closed vent system and control device by meeting the requirements in paragraphs (b) through (h) of this section that apply to your closed vent system and control device.

(b) You must demonstrate initial compliance with the closed vent system work practice standards in §63.7925(c) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (b)(1) and (2) of this section.

(1) You have installed a closed vent system that meets the requirements in §63.695(c)(1) and (2), and you have records documenting the equipment design and installation.

(2) You have performed the initial inspection of the closed vent system according to the requirements in §63.695(c)(1)(i) or (ii), and you have records documenting the inspection results.

(c) You must demonstrate initial compliance of each control device subject to the emissions limits in §63.7925(d) with the applicable emissions limit in §63.7925(d) if you have submitted as part of your

notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (c)(1) and (2) of this section that apply to you.

(1) For the emissions limit in §63.7925(d)(1), the emissions of total HAP listed in Table 1 of this subpart or TOC (minus methane and ethane) from the control device, measured or determined according to the procedures for performance tests and design evaluations in §63.7941, are reduced by at least 95 percent by weight.

(2) For the emissions limit in §63.7925(d)(2), the concentration of total HAP listed in Table 1 of this subpart or TOC (minus methane and ethane) from the combustion control device, measured by a performance test or determined by a design evaluation according to the procedures in §63.7941, do not exceed 20 ppmv on a dry basis corrected to 3 percent oxygen.

(d) You must demonstrate initial compliance of each control device subject to operating limits in §63.7925(g) with the applicable limits if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (d)(1) and (2) of this section.

(1) You have established an appropriate operating limit(s) for each of the operating parameter applicable to your control device as specified in §63.7925(g)(1) through (6).

(2) You have a record of the applicable operating parameter data during the performance test or design evaluation during which the emissions met the applicable limit.

(e) You must demonstrate initial compliance with the spent carbon replacement and disposal work practice standards for carbon adsorption systems in §63.7925(h) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you will comply with each work practice standard that applies to your carbon adsorption system.

(f) You must demonstrate initial compliance with the catalyst replacement work practice standards for catalytic incinerators in §63.7925(i) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you will comply with the specified work practice standard.

(g) You must demonstrate initial compliance of each flare with the work practice standards in §63.7925(e) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (g)(1) through (3) of this section.

(1) Each flare meets the requirements in §63.11(b).

(2) You have performed a visible emissions test, determined the net heating value of gas being combusted, and determined the flare exit velocity as required in §63.693(h)(2).

(3) You will operate each flare according to the requirements in §63.11(b).

(h) You must demonstrate initial compliance of each boiler or process heater with the work practice standards in §63.7925(f) if you have submitted as part of your notification of compliance status, specified

in §63.7950, a signed statement that you have met the requirements in paragraphs (h)(1) through (3) of this section.

(1) For the work practice standards in §63.7925(f)(1), you have records documenting that the boiler or process heater is designed to operate at a residence time of 0.5 seconds or greater and maintain the combustion zone temperature at 760EC or greater.

(2) For the work practice standard in §63.7925(f)(2), you have records documenting that the vent stream is introduced with the fuel according to the requirements in §63.693(g)(1)(iv), or that the vent stream is introduced to a boiler or process heater that meets the requirements in §63.693(g)(1)(v).

(3) For the work practice standard in §63.7925(f)(3), you have records documenting you either have been issued a final permit under 40 CFR part 270 and your boiler or process heater complies with the requirements of 40 CFR part 266, subpart H--Hazardous Waste Burned in Boilers and Industrial Furnaces; or has been certified in compliance with the interim status requirements of 40 CFR part 266, subpart H.

§ 63.7927 What are my inspection and monitoring requirements for closed vent systems and control devices?

(a) You must comply with the requirements in paragraphs (a)(1) and (2) of this section for each closed vent system.

(1) You must monitor and inspect each closed vent system according to the requirements in either paragraph (a)(1)(i) or (ii) of this section.

(i) You must monitor, inspect, and repair defects according to the requirements in §63.695(c)(1)(ii) through (c)(3); or

(ii) You must monitor and inspect the closed vent system according to the requirements in §63.172(f) through (j) and record the information in §63.181.

(2) If your closed vent system includes a bypass device, you must meet the requirements in either paragraph (a)(2)(i) or (ii) of this section.

(i) Use a flow indicator to determine if the presence of flow according to the requirements in §63.693(c)(2)(i); or

(ii) Use a seal or locking device and make monthly inspections as required by §63.693(c)(2)(ii).

(b) If you use a regenerable carbon adsorption system, you must meet the requirements in paragraphs (b)(1) through (3) of this section.

(1) Use a continuous parameter monitoring system (CPMS) to measure and record the hourly average total regeneration stream mass flow during each carbon adsorption cycle.

(2) Use a CPMS to measure and record the hourly average temperature of the adsorption bed during regeneration (except during the cooling cycle).

(3) Use a CPMS to measure and record the hourly average temperature of the adsorption bed after regeneration (and within 15 minutes of after completing any cooling cycle).

(c) If you use a nonregenerable carbon adsorption system, you must use a CPMS to measure and record the hourly average temperature of the adsorption bed or you must monitor the concentration of organic compounds in the exhaust vent stream according to the requirements in §63.693(d)(4)(iii)(A).

(d) If you use a condenser, you must use a CPMS to measure and record the hourly average condenser exit temperature and determine and record the daily average condenser exit temperature.

(e) If you use a thermal incinerator, you must use a CPMS to measure and record the hourly average firebox temperature and determine and record the daily average firebox temperature.

(f) If you use a catalytic incinerator, you must use a CPMS with two temperature sensors to measure and record the hourly average temperature at the inlet of the catalyst bed, the hourly average temperature at the outlet of the catalyst bed, the hourly average temperature difference across the catalyst bed, and to determine and record the daily average temperature difference across the catalyst bed.

(g) If you use a boiler or process heater to meet an emission limitation, you must use a CPMS to measure and record the hourly average firebox temperature and determine and record the daily average firebox temperature.

(h) If you use a flare, you must monitor the operation of the flare using a heat sensing monitoring device according to the requirements in §63.693(h)(3).

(i) If you introduce the vent stream into the flame zone of a boiler or process heater according to the requirements in §63.7925(f)(1), you must use a CPMS to measure and record the combustion zone temperature.

§ 63.7928 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for closed vent systems and control devices?

(a) You must demonstrate continuous compliance with the emissions limitations and work practice standards in this subpart applicable to your closed vent system and control device by meeting the requirements in paragraphs (b) through (j) of this section as applicable to your closed vent system and control device.

(b) You must demonstrate continuous compliance with the closed vent system work practice standards in §63.7925(c) by meeting the requirements in paragraphs (b)(1) through (7) of this section.

(1) For a closed vent system designed to operate with no detectable organic emissions, visually inspecting the closed vent system at least annually, monitoring after a repair or replacement using the procedures in §63.694(k), and monitoring at least annually according to the requirements in §63.695(c)(1)(ii).

(2) For a closed vent system designed to operate below atmospheric pressure, visually inspecting the closed vent system at least annually according to the requirements in §63.695(c)(2)(ii).

(3) Repairing defects according to the requirements in §63.695(c)(3).

(4) Keeping records of each inspection that include the information in paragraphs (b)(4)(i) through (iii) of this section:

(i) A closed vent system identification number (or other unique identification description you select).

(ii) Date of each inspection.

(iii) If a defect is detected during an inspection, the location of the defect, a description of the defect, the date of detection, the corrective action taken to repair the defect, and if repair is delayed, the reason for any delay and the date completion of the repair is expected.

(5) If you elect to monitor the closed vent system according to the requirements in §63.172(f) through (j), recording the information in §63.181.

(6) If the closed vent system is equipped with a flow indicator, recording the information in §63.693(c)(ii)(i).

(7) If the closed vent system is equipped with a seal or locking device, visually inspecting the seal or closure mechanism at least monthly according to the requirements in §63.693(c)(ii)(i), and recording the results of each inspection.

(c) You must demonstrate continuous compliance of each control device subject to the emissions limits in §63.7925(d) with the applicable emissions limit in §63.7925(d) by meeting the requirements in paragraphs (c)(1) and (2) of this section.

(1) For the emission limit in §63.7925(d)(1), maintaining the reduction in emissions of total HAP listed in Table 1 of this subpart or TOC (minus methane and ethane) from the control device at 95 percent by weight or greater.

(2) For the emission limit in §63.7925(d)(2), maintaining the concentration of total HAP listed in Table 1 of this subpart or TOC (minus methane and ethane) from the control device at 20 ppmv or less.
(d) You must demonstrate continuous compliance of each control device subject to operating limits in §63.7925(g) with the applicable limits by meeting the requirements in paragraphs (d)(1) through (4) of this section.

(1) Maintaining each operating limit according to the requirements in §63.7925(g) as applicable to the control device.

(2) Monitoring and inspecting each control device according to the requirements in §63.7927(b) through (i) as applicable to the control device.

(3) Operating and maintaining each continuous monitoring system according to the requirements in §63.7945, and collecting and reducing data according to the requirements in §63.7946.

(4) Keeping records to document compliance with the requirements of this subpart according to the requirements in §63.7952.

(e) You must demonstrate continuous compliance with the spent carbon replacement and disposal work practice standards for regenerable carbon adsorption systems in §63.7925(h)(1) by meeting the requirements in paragraphs (e)(1) through (3) of this section.

(1) Replacing the adsorbent as required by §63.7925(h)(1)(i).

(2) Following the disposal requirements for spent carbon in §63.693(d)(4)(ii).

(3) Keeping records to document compliance with the requirements of the work practice standards.

(f) You must demonstrate continuous compliance with the spent carbon replacement and disposal work practice standards for nonregenerable carbon adsorption systems in §63.7925(h)(2) by meeting the requirements in paragraphs (f)(1) through (3) of this section.

(1) Replacing the adsorbent as required by the work practice standard in §63.7925(h)(2)(i).

(2) Following the disposal requirements for spent carbon in §63.693(d)(4)(ii).

(3) Keeping records to document compliance with the requirements of the work practice standards.

(g) You must demonstrate continuous compliance with the spent carbon replacement and disposal work practice standards for nonregenerable carbon adsorption systems in §63.7925(h)(3) by meeting the requirements in paragraphs (g)(1) through (3) of this section.

(1) Monitoring the concentration level of the organic compounds in the exhaust vent for the carbon adsorption system as required in §63.7927(c), immediately replacing the carbon canister or carbon in the control device when breakthrough is indicated by the monitoring device, and recording the date of breakthrough and carbon replacement. Or, you must replace the carbon canister or carbon in the control device at regular intervals and record the date of carbon replacement.

(2) Following the disposal requirements for spent carbon in §63.693(d)(4)(ii).

(3) Keeping records to document compliance with the requirements of the work practice standards.

(h) You must demonstrate continuous compliance with the catalyst replacement work practice standards for catalytic incinerators in §63.7925(i) by meeting the requirements in paragraphs (h)(1) and (2) of this section.

(1) Replacing the existing catalyst bed as required in §63.7925(i).

(2) Keeping records to document compliance with the requirements of the work practice standards.

(i) You must demonstrate continuous compliance of each flare with the work practice standards in §63.7925(e) by meeting the requirements in paragraphs (i)(1) through (5) of this section.

(1) Operating the flare with no visible emissions except for up to 5 minutes in any 2 consecutive hours according to the requirements in §63.11(b)(4).

(2) Monitoring the presence of a pilot flare according to the requirements in §63.7927(h) and maintaining a pilot flame and flare flame at all times that emissions are not vented to the flare according to the requirements in §63.11(b)(5).

(3) Operating the flare with an exit velocity according to the requirements in §63.11(b)(6) through (8).

(4) Operating the flare with a net heating value of the gas being combusted according to the requirements in §63.11(b)(6)(ii).

(5) Keeping records to document compliance with the requirements of the work practice standards.

(j) You must demonstrate continuous compliance of each boiler or process heater with the work practice standards in §63.7925(f) by meeting the requirements in paragraphs (j)(1) through (3) of this section.

(1) For the work practice standards in §63.7925(f)(1), you must demonstrate continuous compliance by meeting the requirements in paragraphs (j)(1)(i) through (iv).

(i) Maintaining conditions in the combustion chamber at a residence time of 0.5 seconds or longer and at a combustion zone temperature at 760EC or greater whenever the vent stream is introduced to the flame zone of the boiler or process heater.

(ii) Monitoring each boiler or process heater according to the requirements in §63.7927(i).

(iii) Operating and maintaining each continuous monitoring system according to the requirements in §63.7945, and collecting and reducing data according to the requirements in §63.7946.

(iv) Keeping records to document compliance with residence time design requirement.

(2) For the work practice standards in §63.7925(f)(2), you maintain the boiler or process heater operations such that the vent stream is introduced with the fuel according to the requirements in §63.693(g)(1)(iv), or that the vent stream is introduced to a boiler or process heater that meets the requirements in §63.693(g)(1)(v).

(3) For the work practice standard in §63.7925(f)(3), you remain in compliance with all terms and conditions of the final permit under 40 CFR part 270 and your boiler or process heater complies with the requirements of 40 CFR part 266, subpart H--Hazardous Waste Burned in Boilers and Industrial Furnaces; or in compliance with the interim status requirements of 40 CFR part 266, subpart H, as applicable to your boiler or process heater.

General Compliance Requirements

§ 63.7935 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emissions limitations (including operating limits) and the work practice standards in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).

(c) You must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).

(d) During periods of startup, shutdown, and malfunction, you must operate according to the SSMP.

(e) You must report each instance in which you did not meet each emissions limitation and each operating limit that applies to you. This includes periods of startup, shutdown, and malfunction. You must also report each instance in which you did not meet the requirements for work practice standards that apply to you. These instances are deviations from the emissions limitations and work practice standards in this subpart. These deviations must be reported according to the requirements in §63.7951.

(f) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating according to the SSMP. We will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).

(g) For each monitoring system required in this section, you must develop and make available for inspection by the permitting authority, upon request, a site-specific monitoring plan that addresses the following:

(1) Installation of the continuous monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).

(2) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system.

(3) Performance evaluation procedures and acceptance criteria (e.g., calibrations).

(h) In your site-specific monitoring plan, you must also address the following:

(1) Ongoing operation and maintenance procedures according to the general requirements of §63.8(c)(1), (3), (4)(ii), (7), and (8).

(2) Ongoing data quality assurance procedures according to the general requirements of §63.8(d).

(3) Ongoing record keeping and reporting procedures according to the general requirements of §63.10(c), (e)(1), and (e)(2)(i).

(i) You must operate and maintain the continuous monitoring system according to the site-specific monitoring plan.

(j) You must conduct a performance evaluation of each continuous monitoring according to your site-specific monitoring plan.

§ 63.7936 What requirements must I meet if I transfer remediation material off-site to another facility?

(a) If you transfer to another facility a remediation material generated by your remediation activities and having an average total VOHAP concentration equal to or greater than 10 ppmw (as determined using the procedures specified in §63.7943), then you must transfer the remediation material to a facility that meets the requirements in paragraph (b) of this section. You must record the name, street address, and telephone number of the facility where you send this remediation material.

(b) You may elect to transfer the remediation material to one of the following facilities:

(1) A facility where your remediation material will be directly disposed in a landfill or other land disposal unit according to all applicable Federal and State requirements.

(2) A facility subject to 40 CFR part 63, subpart DD where the exemption under §63.680(b)(2)(iii) is waived and air emissions from the management of your remediation material at the facility are controlled according to all applicable requirements in the subpart for an off-site material. Prior to sending your remediation material, you must obtain a written statement from the owner or operator of the facility to which you send your remediation material acknowledging that the exemption under §63.680(b)(2)(iii) will be waived for all remediation material received at the facility from you and your material will be managed as an off-site material at the facility according to all applicable requirements. This statement must be signed by the responsible official of the receiving facility, provide the name and address of the receiving facility, and a copy sent to the appropriate EPA Regional Office at the addresses listed in 40 CFR 63.13.

(3) A facility where your remediation material will be managed according to all applicable requirements under this subpart.

(i) You must prepare and include a notice with each shipment or transport of remediation material from your site. This notice must state that the remediation material contains organic HAP that are to be treated according to the provisions of this subpart. When the transport is continuous or ongoing (for example, discharge to a publicly owned treatment works), the notice must be submitted to the receiving facility owner or operator initially and whenever there is a change in the required treatment.

(ii) You may not transfer the remediation material unless the owner or operator of the facility receiving your remediation material has submitted to the EPA a written certification that the he or she will manage remediation material received from you according to the requirements of §§63.7885 through 63.7957. The receiving facility owner or operator may revoke the written certification by sending a written statement to the EPA and to you providing at least 90 days notice that they rescind acceptance of responsibility for

compliance with the regulatory provisions listed in this section. Upon expiration of the notice period, you may not transfer your remediation material to the facility.

(iii) By providing the written certification to the EPA, the receiving facility owner or operator accepts responsibility for compliance with the regulatory provisions listed in paragraph (b)(3) of this section with respect to any shipment of remediation material covered by the written certification. Failure to abide by any of those provisions with respect to such shipments may result in enforcement action by the EPA against the certifying entity according to the enforcement provisions applicable to violations of these provisions by owners or operators of sources.

(iv) Written certifications and revocation statements to the EPA from the receiving facility owner or operator must be signed by the responsible official of the receiving facility, provide the name and address of the receiving facility, and a copy sent to the appropriate EPA Regional Office at the addresses listed in 40 CFR 63.13. Such written certifications are not transferable.

(c) Acceptance by a facility owner or operator of remediation material from a site remediation subject to this subpart does not, by itself, require the facility owner or operator to obtain a title V permit under 40 CFR 70.3 or 40 CFR 71.3.

§ 63.7937 How do I demonstrate initial compliance with the general standards?

(a) You must demonstrate initial compliance with the general standards in §§63.7884 through 63.7887 that apply to your affected sources by meeting the requirements in paragraphs (b) through (d) of this section, as applicable to you.

(b) You must demonstrate initial compliance with the general standards in §63.7885 that apply to your affected process vents by meeting the requirements in paragraphs (1) through (4) of this section, as applicable to your process vents.

(1) If HAP emissions are controlled from the affected process vents according to the emission limitations and work practice standards specified in §63.7885(b)(1), you have met the initial compliance requirements in §63.7891.

(2) If the remediation material treated or managed by the process vented through the affected process vents has an average total VOHAP less than 10 ppmw according to §63.7885(b)(2), you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have determined, according to the procedures §63.7943, and recorded the average VOHAP concentration of the remediation material placed in the affected remediation material management unit.

(3) If HAP emissions are controlled from the affected process vents to meet standards in another subpart under 40 CFR part 61 or 40 CFR part 63 according to §63.7885(b)(3), you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (b)(3)(i) and (ii) of this section.

(i) You include in your statement the citations for the specific emission limitations and work practice standards that apply to the process vents under the subpart in 40 CFR part 61 or 40 CFR part 63 that the vents are also subject.

(ii) You are complying with all applicable emissions limitations and work practice standards specified by the applicable subpart.

(4) For each process vent exempted according to §63.7885(c), you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (b)(4)(i) and (ii) of this section.

(i) You identify in your statement each process vent that qualifies for an exemption and the exemption conditions in §63.7885(c)(1)(i) or (ii) that apply to each exempted process vent.

(ii) You have performed the measurements and prepared the documentation required in §63.7885(c)(2) that demonstrates that each exempted process vent stream meets the applicable exemption conditions in §63.7885(c)(1).

(c) You must demonstrate initial compliance with the general standards in §63.7886 that apply to your affected remediation material management units by meeting the requirements in paragraphs (1) through (6) of this section, as applicable to your remediation material management units.

(1) If the remediation material management unit uses air pollution controls according to the standards specified in §63.7886(b)(1), you have met the initial compliance requirements applicable to the remediation material management unit in §§63.7896, 63.7901, 63.7906, 63.7911, or 63.7816.

(2) If the remediation material managed in the affected remediation material managements has an average total VOHAP less than 500 ppmw according to §63.7886(b)(2), you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have determined, according to the procedures §63.7943, and recorded the average VOHAP concentration of the remediation material placed in the affected remediation material management unit.

(3) If HAP emissions are controlled from the affected remediation material management units to meet standards in another subpart under 40 CFR part 61 or 40 CFR part 63 according to §63.7886(b)(3), you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (c)(3)(i) and (ii) of this section.

(i) You include in your statement the citations for the specific emission limitations and work practice standards that apply to the remediation material management units under the subpart in 40 CFR part 61 or 40 CFR part 63 that the units are also subject.

(ii) You are complying with all applicable emissions limitations and work practice standards specified by the applicable subpart.

(4) If HAP emissions are controlled from the affected remediation material management unit that is an open tank or surface impoundment used for a biological treatment process according to §63.7886(b)(4), you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (c)(4)(i) and (ii) of this section.

(i) You have performed the measurements and prepared the documentation required in §63.7886(4)(i) that demonstrates that each unit meets the applicable performance levels.

(ii) You will monitor the biological treatment process conducted in each unit according the requirements in §63.7886(4)(i).

(5) For each remediation material management unit used for cleanup of radioactive mixed waste and exempted according to §63.7886(c), you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (c)(5)(i) and (ii) of this section.

(i) You include in your statement the citations for the specific requirements that apply to the remediation material management units under regulations, directives, and other requirements under the Atomic Energy Act, the Nuclear Waste Policy Act, or the Waste Isolation Pilot Plant Land Withdrawal Act.

(ii) You are complying with all requirements that apply to the remediation material management units under the applicable regulations or directives.

(6) For each remediation material management unit exempted according to §63.7886(d), you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (c)(6)(i) and (ii) of this section.

(i) You have designated according to the requirements in §63.7886(d)(1) each of the remediation material management units you are selecting to be exempted.

(ii) You have performed an initial determination and prepared the documentation required in §63.7886(d)(2) that demonstrates that the total annual HAP quantity (based on the HAP listed in Table 1 of this subpart) in the remediation material placed in all of the designated exempted remediation material management units will be less than 1 Mg/yr.

(d) You must demonstrate initial compliance with the general standards in §63.7887 that apply to your affected equipment leak sources by meeting the requirements in §63.7921.

§ 63.7938 How do I demonstrate continuous compliance with the general standards?

(a) You must demonstrate continuous compliance with the general standards in §§63.7884 through 63.7887 that apply to your affected sources by meeting the requirements in paragraphs (b) through (d) of this section, as applicable to you.

(b) You have demonstrated continuous compliance with the general standards in §63.7885 that apply to your affected process vents by meeting the requirements in paragraphs (1) through (4) of this section, as applicable to your process vents.

(1) If HAP emissions are controlled from the affected process vents according to the emission limitations and work practice standards specified in §63.7885(b)(1), you must demonstrate continuous compliance by meeting the requirements in §63.7893.

(2) If the remediation material treated or managed by the process vented through the affected process vents has an average total VOHAP less than 10 ppmw according to §63.7885(b)(2), you must demonstrate continuous compliance by performing a new determination and preparing new documentation as required

in §63.7886(c)(2) to show that the total VOHAP concentration of the remediation material remains less than 10 ppmw.

(3) If HAP emissions are controlled from the affected process vents to meet standards in another subpart under 40 CFR part 61 or 40 CFR part 63 according to §63.7885(b)(3), you must demonstrate continuous compliance by complying with all applicable emissions limitations and work practice standards specified by the applicable subpart.

(4) For each process vent exempted according to §63.7885(c), you must demonstrate continuous compliance by performing new measurements and preparing new documentation as required in §63.7885(c)(2) that demonstrates that each exempted process vent stream meets the applicable exemption conditions in §63.7885(c)(1).

(c) You must demonstrate continuous compliance with the general standards in §63.7886 that apply to your affected remediation material management units by meeting the requirements in paragraphs (1) through (6) of this section, as applicable to your remediation material management units.

(1) If the remediation material management unit uses air pollution controls according to the standards specified in §63.7886(b)(1), you must demonstrate continuous compliance by meeting the requirements applicable to the remediation material management unit in §§63.7898, 63.7903, 63.7908, 63.7913, or 63.7818.

(2) If the remediation material managed in the affected remediation material managements has an average total VOHAP concentration less than 500 ppmw according to §63.7886(b)(2), you must demonstrate continuous compliance by performing a new determination and preparing new documentation as required in §63.7886(c)(2) to show that the total VOHAP concentration of the remediation material remains less than 500 ppmw.

(3) If HAP emissions are controlled from the affected remediation material management units to meet standards in another subpart under 40 CFR part 61 or 40 CFR part 63 according to §63.7886(b)(3), you must demonstrate continuous compliance by meeting all applicable emissions limitations and work practice standards specified by the applicable subpart.

(4) If HAP emissions are controlled from the affected remediation material management unit that is an open tank or surface impoundment used for a biological treatment process according to §63.7886(b)(4), you must demonstrate continuous compliance by meeting the requirements in paragraphs (c)(4)(i) and (ii) of this section.

(i) Performing new measurements and preparing new documentation as required in §63.7886(4)(i) that demonstrates that each unit meets the applicable performance levels.

(ii) Monitoring the biological treatment process conducted in each unit according the requirements in §63.7886(4)(i).

(5) For each remediation material management unit used for cleanup of radioactive mixed waste and exempted according to §63.7886(c), you must demonstrate continuous compliance by meeting all requirements that apply to the remediation material management units under the applicable regulations or directives.

(6) For each remediation material management unit exempted according to §63.7886(d), you must demonstrate continuous compliance by performing new measurements and preparing new documentation as required in §63.7886(d)(2) to show that the total annual HAP quantity (based on the HAP listed in Table 1 of this subpart) in the remediation material placed in all of the designated exempted remediation material management units remains less than 1 Mg/yr.

(d) You have demonstrated continuous compliance with the general standards in §63.7887 that apply to your affected equipment leak sources by meeting the requirements in §63.7923.

Performance Tests

§ 63.7940 By what date must I conduct performance tests or other initial compliance demonstrations?

(a) You must conduct a performance test or design evaluation for each existing affected source within 180 calendar days after the compliance date that is specified in §63.7883.

(b) For each work practice standard that applies to you where initial compliance is not demonstrated using a performance test or design evaluation, you must demonstrate initial compliance within 30 calendar days after the compliance date that is specified in §63.7883 for your affected source.

(c) For new sources, you must conduct initial performance tests and other initial compliance demonstrations according to the provisions in §63.7(a)(2)(i) and (ii).

§ 63.7941 How do I conduct a performance test, design evaluation, or other type of initial compliance demonstration?

(a) You must conduct a performance test or design evaluation to demonstrate initial compliance for each new or existing affected source that is subject to an emission limit in this subpart. You must report the results of the performance test or design evaluation according to the requirements in §63.7950(e)(1).

(b) If you choose to conduct a performance test to demonstrate initial compliance, you must conduct the test according to the requirements in §63.7(e)(1) and paragraphs (b)(1) through (5) of this section.

(1) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

(2) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §63.7(e)(1).

(3) You must conduct each performance test using the test methods and procedures in §63.694(l).

(4) Follow the procedures in paragraphs (b)(4(i) through (iii) of this section to determine compliance with the facility-wide total organic mass emissions rate in §63.7890(a)(1)(i).

(i) Determine compliance with the total organic mass flow rate using Equation 1 of this section as follows:

$$E_h = (0.0416\times10^{-6})Q_{sd} \sum_{i=1}^{n} (C_i\times MW_i) \qquad \text{(Eq. 1)}$$

where:

E_h = Total organic mass flow rate, kg/h;

Q_{sd} = Volumetric flow rate of gases entering or exiting control device (or exiting the process vent if no control device is used), as determined by Method 2 of 40 CFR part 60, appendix A, dscm/h;

n = Number of organic compounds in the vent gas;

C_i = Organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18 of 40 CFR part 60, appendix A;

MW_i = Molecular weight of organic compound i in the vent gas,kg/kg-mol;

(ii) Determine compliance with the annual total organic emissions rate using Equation 2 of this section

as follows:

$$E_A = E_h\times H \qquad \text{(Eq. 2)}$$

where:

E_A = Total organic mass emissions rate, kilograms per year;

E_h = Total organic mass flow rate for the process vent, kg/h;

H = Total annual hours of operation for the affected unit, h.

(iii) Determine compliance with the total organic emissions limit from all affected process vents at the facility by summing the total hourly organic mass emissions rates (E_h as determined in Equation 1 of this section) and summing the total annual organic mass emissions rates (E_A, as determined in Equation 2 of this section) for all affected process vents at the facility.

(5) Determine compliance with the 95 percent reduction limit in §63.7890(a)(2)(i) for the combination of all affected process vents at the facility using Equations 3 and 4 of this section to calculate control device inlet and outlet concentrations and Equation 5 of this section to calculate control device emission reductions for process vents as follows:

$$E_i \;'\; K_2 \left(\underset{j \,'\, 1}{\overset{n}{j}} C_{ij} M_{ij} \right) Q_i \qquad (Eq.\ 3)$$

$$E_o \;'\; K_2 \left(\underset{j \,'\, 1}{\overset{n}{j}} C_{oj} M_{oj} \right) Q_o \qquad (\ Eq.\ 4\ )$$

where:

C_{ij}, C_{oj} = Concentration of sample component j of the gas stream at the inlet and outlet of the control device, dry basis, parts per million by volume. For uncontrolled vents, $C_{ij} = C_{oj}$ and equal the concentration exiting the vent;

E_i, E_o = Mass rate of total organic compounds (TOC) (minus methane and ethane) or total HAP, from Table 1 of this subpart, at the inlet and outlet of the control device, respectively, dry basis, kilogram per hour. For uncontrolled vents, $E_i = E_o$ and equal the concentration exiting the vent;

M_{ij}, M_{oj} = Molecular weight of sample component j of the gas stream at the inlet and outlet of the control device, respectively, gram/gram-mole. For uncontrolled vents, $M_{ij} = M_{oj}$ and equal the gas stream molecular weight exiting the vent;

Q_i,Q_o = Flowrate of gas stream at the inlet and outlet of the control device, respectively, dry standard cubic meters per minute (dscm/min). For uncontrolled vents, $Q_i = Q_o$ and equals the flowrate exiting the vent;

K_2 = Constant, 2.494 X 10^{-6} (parts per million)$^{-1}$(gram-mole per standard cubic meter)(kilogram/gram)(minute/hour, where standard temperature (gram-mole per standard cubic meter) is 20EC;

n = the number of components in the sample.

$$R_v = \frac{\sum_{j=1}^{n} E_i - \sum_{j=1}^{n} E_o}{\sum_{j=1}^{n} E_i} x\ 100 \quad \text{(Eq. 5)}$$

where:

R_v = Overall emissions reduction for all affected process vents, percent

E_i = Mass rate of TOC (minus methane and ethane) or total HAP, from Table 1 of this subpart, at the inlet to the control device, or exiting the vent for uncontrolled vents, as calculated in this section, kilograms TOC per hour or kilograms HAP per hour;

E_o = Mass rate of TOC (minus methane and ethane) or total HAP, from Table 1 of this subpart, at the outlet to the control device, or exiting the vent for uncontrolled vents, as calculated in this section, kilograms TOC per hour or kilograms HAP per hour. For vents without a control device, $E_o = E_i$;

n = number of affected source process vents.

(c) If you use a carbon adsorption system, condenser, vapor incinerator, boiler, or process heater to meet an emission limit in this subpart, you may choose to perform a design evaluation to demonstrate initial compliance instead of a performance test. You must perform a design evaluation according to the general requirements in §63.693(b)(8) and the specific requirements in §63.694(d)(2)(ii) for a carbon adsorption system (including establishing carbon replacement schedules and associated requirements), §63.694(e)(2)(ii) for a condenser, §63.694(f)(2)(ii) for a vapor incinerator, or §63.694(g)(2)(i)(B) for a boiler or process heater.

(d) During the performance test or design evaluation, you must collect the appropriate operating parameter monitoring system data, average the operating parameter data over each test run, and set operating limits, whether a minimum or maximum value, based on the average of values for each of the three test runs. If you use a control device design analysis to demonstrate control device performance, then the minimum or maximum operating parameter value must be established based on the control device design analysis and supplemented, as necessary, by the control device manufacturer recommendations or other applicable information.

(e) If you control air emissions from an affected source by introducing the vent stream into the flame zone of a boiler or process heater according to the requirements in §63.693(g)(1)(iii), you must conduct a performance test or design evaluation to demonstrate that the boiler or process heater meets the applicable emission limit while operating at a residence time of 0.5 seconds or greater and at a combustion zone temperature of 760EC or higher.

(f) You must conduct a performance evaluation for each continuous monitoring system according to the requirements in §63.8(e).

(g) If you are required to conduct a visual inspection of an affected source, you must conduct the inspection according to the procedures in §63.906(a)(1) for Tank Level 1 controls, §63.1063(d) for Tank Level 2 controls, §63.946(a) for a surface impoundment equipped with a floating membrane cover, §63.946(b) for a surface impoundment equipped with a cover and vented to a control device, §63.1047(a) for a separator with a fixed roof, §63.1047(c) for a separator equipped with a fixed roof and vented to a control device, §63.695(c)(1)(i) or (c)(2)(i) for a closed vent system, and §63.964(a) for individual drain systems.

(h) If you use Container Level 1 controls, you must conduct a test to demonstrate that the container operates with no detectable organic emissions using Method 21 (40 CFR part 60, appendix A) and the procedures in §63.925(a).

(i) If you use Container Level 2 controls, you must conduct a test to demonstrate that the container operates with no detectable organic emissions or that the container is vapor-tight. You must conduct the test using Method 21 (40 CFR part 60, appendix A) and the procedures in §63.925(a) to demonstrate that the container operates with no detectable organic emissions or Method 27 (40 CFR part 60, appendix A) and the procedures in §63.925(b) to demonstrate that the container is vapor-tight.

(j) If you locate an affected source inside a permanent total enclosure that is vented to a control device, you must demonstrate that the enclosure meets the verification criteria in section 5 of Procedure T in 40 CFR 52.741, appendix B.

(k) If you use a fixed roof or a floating roof to control air emissions from a separator, you must conduct a test to demonstrate that the roof operates with no detectable organic emissions using Method 21 (40 CFR part 60, appendix A) and the procedures in §63.1046(a). If you use a floating roof, you also must measure the seal gaps according to the procedures in §63.1046(b).

(l) If you use a flare to control air emissions, you must conduct a visible emissions test using Method 22 in 40 CFR part 60, appendix A, and the procedures in §63.11(b)(4).

(m) For each initial compliance demonstration that requires a performance test or design evaluation, you must report the results in your notification of compliance status according to the requirements in §63.7950(e)(1). For each initial compliance demonstration that does not require a performance test or design evaluation, you must submit a notification of compliance status according to the requirements in §63.7950(e)(2).

§ 63.7942 When must I conduct subsequent performance tests?

For non-flare control devices, you must conduct performance tests at any time the EPA requires you to according to §63.7(3).

§ 63.7943 How do I determine the average VOHAP concentration of my remediation material?

(a) General requirements. You must determine the average total VOHAP concentration of a remediation material at the point-of-extraction using either direct measurement as specified in paragraph (b) of this section or by knowledge as specified in paragraph (c) of this section.

(b) Direct measurement. To determine the average total VOHAP concentration of a remediation material at the point-of-extraction using direct measurement, you must use the procedures in paragraphs (b)(1) through (3) of this section.

(1) Sampling. Samples of each material stream must be collected at the point-of-extraction in a manner such that volatilization of organics contained in the sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

(i) The averaging period to be used for determining the average total VOHAP concentration for the material stream on a mass-weighted average basis must be designated and recorded. The averaging period can represent any time interval that you determine is appropriate for the material stream but must not exceed 1 year. For streams that are combined, an averaging period representative for all streams must be selected.

(ii) No less than four samples must be collected to represent the complete range of HAP compositions and HAP quantities that occur in each material stream during the entire averaging period due to normal variations in the material stream(s). Examples of such normal variations are variation of the HAP concentration within a contamination area.

(iii) All samples must be collected and handled according to written procedures you prepare and document in a site sampling plan. This plan must describe the procedure by which representative samples of the material stream(s) are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures according to the guidance found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 or Method 25D in 40 CFR part 60, appendix A.

(2) Analysis. Each collected sample must be prepared and analyzed according to either one of the methods listed in §63.694(b)(2)(ii), or any current EPA Contracts Lab Program method (or future revisions) capable of identifying all the HAP in Table 1 of this subpart.

(3) Calculations. The average total VOHAP concentration ($\overline{C}$) on a mass-weighted basis must be calculated by using the results for all samples analyzed according to paragraph (c)(2) of this section and Equation 1 of this section as follows:

$$\overline{C} = \frac{1}{Q_T} \times \sum_{i=1}^{n} (Q_i \times C_i) \qquad \text{(Eq. 1)}$$

where:

$\overline{C}$ = Average VOHAP concentration of the material on a mass-weighted basis, ppmw.

i = Individual sample "i" of the material.

n = Total number of samples of the material collected (at least 4 per stream) for the averaging period (not to exceed 1 year).

Q_i = Mass quantity of material stream represented by C_i, kilograms per hour (kg/hr).

Q_T = Total mass quantity of all material during the averaging period, kg/hr.

C_i = Measured VOHAP concentration of sample "i" as determined according to the requirements of paragraph (a)(3)(ii) of this section, ppmw.

(c) Knowledge of the material. To determine the average total VOHAP concentration of a remediation material at the point-of-extraction using knowledge, you must use the procedures in paragraphs (c)(1) through (3) of this section.

(1) Documentation must be prepared that presents the information used as the basis for your knowledge of the material stream's average VOHAP concentration. Examples of information that may be used as the basis for knowledge include: material balances for the source(s) generating each material stream; species-specific chemical test data for the material stream from previous testing that are still applicable to the current material stream; test data for material from the contamination area(s) being remediated.

(2) If test data are used as the basis for knowledge, then you must document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VOHAP concentration. For example, you may use HAP concentration test data for the material stream that are validated according to Method 301 in 40 CFR part 63, appendix A as the basis for knowledge of the material. This information must be provided for each material stream where streams are combined.

(3) If you use species-specific chemical concentration test data as the basis for knowledge of the material, you may adjust the test data to the corresponding average VOHAP concentration value which would be obtained had the material samples been analyzed using Method 305. To adjust these data, the measured concentration for each individual HAP chemical species contained in the material is multiplied by the appropriate species-specific adjustment factor (f_{m305}) listed in Table 1 of this subpart.

(d) In the event that you and us disagree on a determination using knowledge of the average total VOHAP concentration for a remediation material, then the results from a determination of VOHAP concentration using direct measurement by Method 305 in 40 CFR part 60 appendix A, as specified in paragraph (b) of this section, will be used to determine compliance with the applicable requirements of this subpart. We may perform or request that you perform this determination using direct measurement.

§ 63.7944 How do I determine the maximum HAP vapor pressure of my remediation material?

(a) You must determine the maximum HAP vapor pressure of your remediation material using either direct measurement as specified in paragraph (b) of this section or by knowledge as specified in paragraph (c) of this section.

(b) Direct measurement to determine the maximum HAP vapor pressure.

(1) Sampling. A sufficient number of samples must be collected to be representative of the remediation material contained in the tank. All samples must be collected and handled according to written

procedures prepared by you and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the remediation material are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on site in the facility site operating records.

An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures according to the guidance found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 or Method 25D in 40 CFR part 60, appendix A.

(2) Analysis. Any one of the following methods may be used to analyze the samples and compute the maximum HAP vapor pressure of the remediation material:

(i) Method 25E in 40 CFR part 60 appendix A;

(ii) Methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss from External Floating Roof Tanks,";

(iii) Methods obtained from standard reference texts;

(iv) ASTM Method 2879-83; or

(v) Any other method approved by the Administrator.

(c) Use of knowledge to determine the maximum HAP vapor pressure. Documentation must be prepared and recorded that presents the information used as the basis for your knowledge that the maximum HAP vapor pressure of the remediation material is less than the maximum vapor pressure limit listed in Table 2 of this subpart for the applicable tank design capacity category.

(d) In the event that you and us disagree on a determination using knowledge of the maximum HAP vapor pressure of the remediation material, then the results from a determination of maximum HAP vapor pressure using direct measurement by Method 25E in 40 CFR part 60 appendix A, as specified in paragraph (b) of this section, will be used to determine compliance with the applicable requirements of this subpart. We may perform or request that you perform this determination using direct measurement.

Continuous Monitoring Systems

§ 63.7945 What are my monitoring installation, operation, and maintenance requirements?

(a) Each CPMS must meet the requirements in paragraphs (a)(1) through (4) of this section.

(1) Complete a minimum of one cycle of operation for each successive 15-minute period.

(2) To calculate a valid hourly value, you must have at least three of four equally spaced data values (or at least two, if that condition is included to allow for periodic calibration checks) for that hour from a CPMS that is not out of control according to the monitoring plan referenced in §63.7935.

(3) To calculate the average emissions for each averaging period, you must have at least 75 percent of the hourly averages for that period using only block hourly average values that are based on valid data (i.e., not from out-of-control periods).

(4) Unless otherwise specified, each CPMS must determine the hourly average of all recorded readings and daily average, if required.

(b) You must record the results of each inspection, calibration, and validation check.

(c) You must conduct a performance evaluation for each CPMS according to the requirements in §63.8(e) and your site-specific monitoring plan.

§ 63.7946 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section and your site-specific monitoring plan required in §63.7935.

(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, out of control periods and required quality assurance or control activities in data averages and calculations used to report emissions or operating levels, nor may such data be used in fulfilling a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

§ 63.7947 What are my monitoring alternatives?

(a) As an alternative to the parametric monitoring required in this subpart, you may install, calibrate, and operate a continuous emission monitoring system (CEMS) to measure the control device outlet total organic emissions or organic HAP emissions concentration.

(1) The CEMS used on combustion control devices must include a diluent gas monitoring system (for O_2 or CO_2) with the pollutant monitoring system in order to correct for dilution (e.g., to 0 percent excess air).

(2) Each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. Data must be reduced as specified in §63.8(g)(2).

(3) You must conduct a performance evaluation of the CEMS according to according to the requirements in §63.8 and Performance Specification 8 (for a total organic emissions CEMS) or Performance Specification 9 (for a HAP emissions CEMS) and Performance Specification 3 (for an O_2 or CO_2 CEMS) of 40 CFR part 60, appendix B. The relative accuracy provision of Performance Specification 8, sections 2.4 and 3 need not be conducted.

(4) You must prepare a site-specific monitoring plan for operating, calibrating, and verifying the operation of your CEMS according to the requirements in §§63.8(c), (d), and (e).

(5) You must establish the emissions concentration operating limit according to paragraphs (a)(5)(i) and (ii) of this section.

(i) During the performance test, you must monitor and record the total organic or HAP emissions concentration at least once every 15 minutes during each of the three test runs.

(ii) Use the data collected during the performance test to calculate and record the average total organic or HAP emissions concentration maintained during the performance test. The average total organic or HAP emissions concentration, corrected for dilution as appropriate, is the maximum operating limit for your control device.

(b) You must maintain the daily (24-hour) average total organic or HAP emissions concentration in the exhaust vent stream of the control device outlet less than or equal to the site-specific operating limit established during the performance test.

Notification, Reports, and Records

§ 63.7950 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), 63.8(f)(4) and (6), and 63.9(b) through (h) that apply to you.

(b) As specified in §63.9(b)(2), if you start up your affected source before October 8, 2003, you must submit an Initial Notification not later than 120 calendar days after October 8, 2003.

(c) As specified in §63.9(b)(3), if you start up your new or reconstructed affected source on or after the effective date, you must submit an Initial Notification no later than 120 calendar days after initial startup.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in §63.7(b)(1).

(e) If you are required to conduct a performance test, design evaluation, or other initial compliance demonstration, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration that includes a performance test or design evaluation, you must submit the Notification of Compliance Status, including the performance test results, before the

close of business on the 60th calendar day following the completion of the performance test according to §63.10(d)(2). You must submit the complete design evaluation and supporting documentation.

(2) For each initial compliance demonstration that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th calendar day following the completion of the initial compliance demonstration.

(f) You must provide written notification to the Administrator of the alternative standard selected under §63.1006(b)(5) or (6) before implementing either of the provisions.

§ 63.7951 What reports must I submit and when?

(a) Compliance report due dates. Unless the Administrator has approved a different schedule, you must submit a semiannual compliance report to your permitting authority according to the requirements specified in paragraphs (a)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.7883 and ending on June 30 or December 31, whichever date comes first after the compliance date that is specified for your affected source.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after your first compliance report is due.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of the dates specified in paragraphs (a)(1) through (4) of this section.

(b) Compliance report contents. Each compliance report must include the information specified in paragraphs (b)(1) through (3) of this section and, as applicable, paragraphs (b)(4) through (9) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown, or malfunction during the reporting period and you took action consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i).

(5) If there were no deviations from any emissions limitations (including operating limit), work practice standards, or operation and maintenance requirements, a statement that there were no deviations from the emissions limitations, work practice standards, or operation and maintenance requirements during the reporting period.

(6) If there were no periods during which a continuous monitoring system (including a CPMS or CEMS) was out-of-control as specified by §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

(7) For each deviation from an emissions limitation (including an operating limit) that occurs at an affected source for which you are not using a continuous monitoring system (including a CPMS or CEMS) to comply with an emissions limitation or work practice standard required in this subpart, the compliance report must contain the information specified in paragraphs (b)(1) through (4) and (b)(7)(i) and (ii) of this section. This requirement includes periods of startup, shutdown, and malfunction.

(i) The total operating time of each affected source during the reporting period.

(ii) Information on the number, duration, and cause of deviations (including unknown cause) as applicable and the corrective action taken.

(8) For each deviation from an emissions limitation (including an operating limit) or work practice standard occurring at an affected source where you are using a continuous monitoring system (including a CPMS or CEMS) to comply with the emissions limitations or work practice standard in this subpart, you must include the information specified in paragraphs (b)(1) through (4) and (b)(8)(i) through (xi) of this section. This requirement includes periods of startup, shutdown, and malfunction.

(i) The date and time that each malfunction started and stopped.

(ii) The date and time that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.

(iii) The date, time, and duration that each continuous monitoring system was out-of-control, including the information in §63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(v) A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes.

(vii) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.

(viii) A brief description of the process units.

(ix) A brief description of the continuous monitoring system.

(x) The date of the latest continuous monitoring system certification or audit.

(xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

(9) You must include the information on equipment leaks required in periodic reports by §63.1018(a) or §63.1039(b).

(c) Immediate startup, shutdown, and malfunction report. If you had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your startup, shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report according to the requirements of §63.10(d)(5)(ii).

(d) Part 70 monitoring report. If you have obtained a title V operating permit for an affected source pursuant to 40 CFR part 70 or 40 CFR part 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report for an affected source along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emissions limitation or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report.

However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an affected source to your permitting authority.

§ 63.7952 What records must I keep?

(a) You must keep the records specified in paragraphs (a)(1) through (4) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(1) and (b)(2)(xiv).

(2) The records in §63.6(e)(3)(iii) through (v) related to startups, shutdowns, and malfunctions.

(3) Results of performance tests and performance evaluations as required by §63.10(b)(2)(viii).

(4) The records of initial and ongoing determinations for affected sources that are exempt from control requirements under this subpart.

(b) For each continuous monitoring system, you must keep the records as described in paragraphs (b)(1) and (2) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi) that apply to your continuous monitoring system.

(2) Performance evaluation plans, including previous (i.e., superseded) versions of the plan as required in §63.8(d)(3).

(c) You must keep the records required by this subpart to show continuous compliance with each emissions limitation, work practice standard, and operation and maintenance requirement that applies to you.

(d) You must record, on a semiannual basis, the information in §63.696(g) for planned routine maintenance of a control device for emissions from process vents.

§ 63.7953 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep your files of all information (including all reports and notifications) for 5 years following the date of each occurrence, measurement, maintenance, action taken to correct the cause of a deviation, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off-site for the remaining 3 years.

(d) If, after the remediation activity is completed, there is no other remediation activity at the facility, and you are no longer the owner of the facility, you may keep all records for the completed remediation activity at an off-site location provided you notify the Administrator in writing of the name, address and contact person for the off-site location.

Other Requirements and Information

§ 63.7955 What parts of the General Provisions apply to me?

Table 3 of this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§ 63.7956 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency, in addition to the EPA, has the authority to implement and enforce this subpart. You should contact your EPA Regional Office (see list in §63.13) to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under section 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are listed in paragraphs (a)(1) through (4) of this section.

(1) Approval of alternatives to the non-opacity emissions limitations and work practice standards in this subpart under §63.6(g).

(2) Approval of major changes to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major changes to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major changes to record keeping and reporting under §63.10(f) and as defined in §63.90.

§ 63.7957 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in §63.2, and in this section. If a term is defined both in this section and in another subpart cross-referenced by this subpart, then the term will have the meaning given in this section for purposes of this subpart.

Boiler means an enclosed combustion device that extracts useful energy in the form of steam and is not an incinerator or a process heater.

Closed vent system means a system that is not open to the atmosphere and is composed of hard-piping, ductwork, connections, and, if necessary, fans, blowers, or other flow-inducing device that conveys gas or vapor from an emissions point to a control device.

Closure device means a cap, hatch, lid, plug, seal, valve, or other type of fitting that prevents or reduces air pollutant emissions to the atmosphere by blocking an opening in a cover when the device is secured in the closed position. Closure devices include devices that are detachable from the cover (e.g., a sampling port cap), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring-loaded pressure relief valve).

Container means a portable unit used to hold material. Examples of containers include, but are not limited to drums, dumpsters, roll-off boxes, bulk cargo containers commonly known as portable tanks or totes, cargo tank trucks, dump trucks, and rail cars. For the purpose of this subpart, a front-end loader, excavator, backhoe, or other type of self-propelled excavation equipment is not a container.

Continuous record means documentation of data values measured at least once every 15 minutes and recorded at the frequency specified in this subpart.

Continuous recorder means a data recording device that either records an instantaneous data value at least once every 15 minutes or records 15-minutes or more frequent block averages.

Control device means equipment used recovering, removing, oxidizing, or destroying organic vapors. Examples of such equipment include but are not limited to carbon adsorbers, condensers, vapor incinerators, flares, boilers, and process heaters.

Cover means a device that prevents or reduces air pollutant emissions to the atmosphere by forming a continuous barrier over the remediation material managed in a unit. A cover may have openings (such as access hatches, sampling ports, gauge wells) that are necessary for operation, inspection, maintenance, and repair of the unit on which the cover is used. A cover may be a separate piece of equipment which can be detached and removed from the unit (such as a tarp) or a cover may be formed by structural features permanently integrated into the design of the unit.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) fails to meet any requirement or obligation established by this subpart, including but not limited to any emissions limitation (including any operating limit), or work practice standard;

(2) fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) fails to meet any emissions limitation,(including any operating limit), or work practice standard in this subpart during startup, shutdown, or malfunction, regardless or whether or not such failure is permitted by this subpart.

Emissions limitation means any emissions limit, opacity limit, operating limit, or visible emissions limit.

Emissions point means an individual tank, surface impoundment, container, oil-water, organic-water separator, transfer system, vent, or enclosure.

Enclosure means a structure that surrounds a tank or container, captures organic vapors emitted from the tank or container, and vents the captured vapor through a closed vent system to a control device.

Equipment means each pump, pressure relief device, sampling connection system, valve, and connector used in remediation material service at a facility.

External floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a tank with no fixed roof.

Facility means all contiguous or adjoining property that is under common control including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof. A unit or group of units within a contiguous property that are not under common control (e.g., a wastewater treatment unit located at the facility but is owned by a different company) is a different facility.

Fixed roof means a cover that is mounted on a unit in a stationary position and does not move with fluctuations in the level of the liquid managed in the unit.

Flame zone means the portion of the combustion chamber in a boiler or process heater occupied by the flame envelope.

Floating roof means a cover consisting of a double deck, pontoon single deck, or internal floating cover which rests upon and is supported by the liquid being contained, and is equipped with a continuous seal.

Flow indicator means a device that indicates whether gas is flowing, or whether the valve position would allow gas to flow in a bypass line.

Hard-piping means pipe or tubing that is manufactured and properly installed according to relevant standards and good engineering practices.

Individual drain system means a stationary system used to convey wastewater streams or residuals to a remediation material management unit or to discharge or disposal. The term includes hard-piping, all drains and junction boxes, together with their associated sewer lines and other junction boxes (e.g., manholes, sumps, and lift stations) conveying wastewater streams or residuals. For the purpose of this subpart, an individual drain system is not a drain and collection system that is designed and operated for the sole purpose of collecting rainfall runoff (e.g., stormwater sewer system) and is segregated from all other individual drain systems.

Internal floating roof means a cover that rests or floats on the liquid surface (but not necessarily in complete contact with it inside a tank that has a fixed roof).

Maximum HAP vapor pressure means the sum of the individual HAP equilibrium partial pressure exerted by remediation material at the temperature equal to either: the monthly average temperature as reported by the National Weather Service when the remediation material is stored or treated at ambient temperature; or the highest calendar-month average temperature of the remediation material when the remediation material is stored at temperatures above the ambient temperature or when the remediation material is stored or treated at temperatures below the ambient temperature. For the purpose of this subpart, maximum HAP vapor pressure is determined using the procedures specified in §63.7944.

No detectable organic emissions means no escape of organics to the atmosphere as determined using the procedure specified in §63.694(k).

Oil-water separator means a separator as defined for this subpart that is used to separate oil from water.

Operating parameter value means a minimum or maximum value established for a control device or treatment process parameter which, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with an applicable emissions limitation or standard.

Organic-water separator means a separator as defined for this subpart that is used to separate organics from water.

Point-of-extraction means a point above ground where you can collect samples of a remediation material before or at the first point where organic constituents in the material have the potential to volatilize and be released to the atmosphere and before placing the material in a remediation material management unit or treatment process. For the purpose this subpart, the first point where the organic constituents in the remediation material have the potential to volatilize and be released to the atmosphere is not a fugitive emissions point due to an equipment leak from any of the following equipment components: pumps, compressors, valves, connectors, instrumentation systems, or safety devices.

Process heater means an enclosed combustion device that transfers heat released by burning fuel directly to process streams or to heat transfer liquids other than water.

Process vent means any open-ended pipe, stack, duct, or other opening intended to allow the passage of gases, vapors, or fumes to the atmosphere and this passage is caused by mechanical means (such as compressors, vacuum-producing systems or fans) or by process-related means (such as volatilization produced by heating). For the purposes of this subpart, a process vent is neither a safety device (as defined in this section) nor a stack, duct or other opening used to exhaust combustion products from a boiler, furnace, heater, incinerator, or other combustion device.

Radioactive mixed waste means a material that contains both hazardous waste subject to RCRA and source, special nuclear, or by-product material subject to the Atomic Energy Act of 1954.

Remediation material means a material that contains one or more of the HAP listed in Table 1 of this subpart, and this material is one of the following:

(1) A material found in naturally occurring media such as soil, groundwater, surface water, sediments, or a mixture of such materials with liquids, sludges, or solids which is inseparable by simple mechanical removal processes and is made up primarily of media. This material does not include debris as defined in 40 CFR 268.2.

(2) A material found in intact or substantially intact containers, tanks, storage piles, or other storage units that requires clean up because this material poses a reasonable potential threat to contaminating media. Examples of these materials include, but are not limited to, solvents, oils, paints, and other volatile or semi-volatile organic liquids found in buried drums, cans, or other containers; gasoline, fuel oil, or other fuels in leaking underground storage tanks; and solid materials containing volatile or semi-volatile organics in unused or abandoned piles. Remediation material is not a waste or residue generated by routine equipment maintenance activities performed at a facility such as, but not limited to, tank bottoms and sludges removed during tank cleanouts; sludges and sediments removed from active wastewater treatment tanks, surface impoundments, or lagoons; spent catalyst removed from process equipment; residues removed from air pollution control equipment; and debris removed during heat exchanger and pipeline cleanouts.

Remediation material management unit means a tank, container, surface impoundment, oil-water separator, organic-water separator, or transfer system used to remove, destroy, degrade, transform, immobilize, or otherwise manage remediation material.

Remediation material service means any time when a pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, or instrumentation system contains or contacts remediation material.

Responsible official means responsible official as defined in 40 CFR 70.2.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions to prevent physical damage or permanent deformation to equipment by venting gases or vapors during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.

Separator means a remediation material management unit, generally a tank, used to separate oil or organics from water. A separator consists of not only the separation unit but also the forebay and other separator basins, skimmers, weirs, grit chambers, sludge hoppers, and bar screens that are located directly after the individual drain system and prior to any additional treatment units such as an air flotation unit clarifier or biological treatment unit. Examples of a separator include, but are not limited to, an API separator, parallel-plate interceptor, and corrugated-plate interceptor with the associated ancillary equipment.

Site remediation means one or more activities or processes used to remove, destroy, degrade, transform, immobilize, or otherwise manage remediation material. The monitoring or measuring of contamination levels in environmental media using wells or by sampling is not considered to be a site remediation. Sludge means sludge as defined in §260.10 of this chapter.

Soil means unconsolidated earth material composing the superficial geologic strata (material overlying bedrock), consisting of clay, silt, sand, or gravel size particles (sizes as classified by the U.S. Soil Conservation Service), or a mixture of such materials with liquids, sludges, or solids which is inseparable by simple mechanical removal processes and is made up primarily of soil.

Stabilization process means any physical or chemical process used to either reduce the mobility of contaminants in media or eliminate free liquids as determined by Test Method 9095 - Paint Filter Liquids Test in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846, Third Edition, September 1986, as amended by Update I, November 15, 1992. (As an alternative, you may use any more recent, updated version of Method 9095 approved by the EPA). A stabilization process includes mixing remediation material with binders or other materials, and curing the resulting remediation material and binder mixture. Other synonymous terms used to refer to this process are fixation or solidification. A stabilization process does not include the adding of absorbent materials to the surface of remediation material, without mixing, agitation, or subsequent curing, to absorb free liquid.

Surface impoundment means a unit that is a natural topographical depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquids. Examples of surface impoundments include holding, storage, settling, and aeration pits, ponds, and lagoons.

Tank means a stationary unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provide structural support and is designed to hold an accumulation of liquids or other materials.

Temperature monitoring device means a piece of equipment used to monitor temperature and having an accuracy of $\pm$1 percent of the temperature being monitored expressed in degrees Celsius (EC) or $\pm$1.2 degrees EC, whichever value is greater.

Transfer system means a stationary system for which the predominant function is to convey liquids or solid materials from one point to another point within waste management operation or recovery operation. For the purpose of this subpart, the conveyance of material using a container (as defined of this subpart) or self-propelled vehicle (e.g., a front-end loader) is not a transfer system. Examples of a transfer system include but are not limited to a pipeline, an individual drain system, a gravity-operated conveyor (such as a chute), and a mechanically-powered conveyor (such as a belt or screw conveyor). Treatment process means a process in which remediation material is physically, chemically, thermally, or biologically treated to destroy, degrade, or remove hazardous air pollutants contained in the material. A treatment process can be composed of a single unit (e.g., a steam stripper) or a series of units (e.g., a wastewater treatment system). A treatment process can be used to treat one or more remediation material streams at the same time.

Volatile organic hazardous air pollutant (VOHAP) concentration means the fraction by weight of the HAP listed in Table 1 of this subpart that are contained in the remediation material as measured using Method 305, 40 CFR part 63, appendix A and expressed in terms of parts per million (ppm). As an alternative to using Method 305, 40 CFR part 63, appendix A, you may determine the HAP concentration of the remediation material using any one of the other test methods specified in §63.694(b)(2)(ii). When a test method specified in §63.694(b)(2)(ii) other than Method 305 in 40 CFR part 63, appendix A is used to determine the speciated HAP concentration of the contaminated material, the individual compound concentration may be adjusted by the corresponding f_{m305} listed in Table 1 of this subpart to determine a VOHAP concentration.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

Tables to Subpart GGGGG of Part 63

Table 1 to Subpart GGGGG of Part 63-- List of Hazardous Air Pollutants

CAS No.[a]	Compound Name	$f_{m\ 305}$
75070	Acetaldehyde	1
75058	Acetonitrile	0.989
98862	Acetophenone	0.314
107028	Acrolein	1
107131	Acrylonitrile	0.999
107051	Allyl chloride	1
71432	Benzene (includes benzene in gasoline)	1
98077	Benzotrichloride (isomers and mixture)	0.958
100447	Benzyl chloride	1
92524	Biphenyl	0.864
542881	Bis(chloromethyl)ether[b]	0.999
75252	Bromoform	0.998
106990	1,3-Butadiene	1
75150	Carbon disulfide	1
56235	Carbon Tetrachloride	1
43581	Carbonyl sulfide	1
133904	Chloramben	0.633
108907	Chlorobenzene	1
67663	Chloroform	1
107302	Chloromethyl methyl ether[b]	1
126998	Chloroprene	1
98828	Cumene	1
94757	2,4-D, salts and esters	0.167
334883	Diazomethane[c]	0.999
132649	Dibenzofurans	0.967
96128	1,2-Dibromo-3-chloropropane	1
106467	1,4-Dichlorobenzene(p)	1

107062	Dichloroethane (Ethylene dichloride)	1
111444	Dichloroethyl ether (Bis(2-chloroethyl ether)	0.757
542756	1,3-Dichloropropene	1
79447	Dimethyl carbamoyl chloride[c]	0.15
57147	1,1-Dimethyl hydrazine	
64675	Diethyl sulfate	0.0025
77781	Dimethyl sulfate	0.086
121697	N,N-Dimethylaniline	0.001
51285	2,4-Dinitrophenol	0.0077
121142	2,4-Dinitrotoluene	0.0848
123911	1,4-Dioxane (1,4-Diethyleneoxide)	0.869
106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	0.939
106887	1,2-Epoxybutane	1
140885	Ethyl acrylate	1
100414	Ethyl benzene	1
75003	Ethyl chloride (Chloroethane)	1
106934	Ethylene dibromide (Dibromoethane)	0.999
107062	Ethylene dichloride (1,2-Dichloroethane)	1
151564	Ethylene imine (Aziridine)	0.867
75218	Ethylene oxide	1
75343	Ethylidene dichloride (1,1-Dichloroethane)	1
	Glycol ethers[d] that have a Henry's Law constant value equal to or greater than 0.1 Y/X(1.8 X 10^{-6} atm/gm-mole/m^3) at 25°C	[e]
118741	Hexachlorobenzene	0.97
87683	Hexachlorobutadiene	0.88
67721	Hexachloroethane	0.499
110543	Hexane	1
78591	Isophorone	0.506
58899	Lindane (all isomers)	1

67561	Methanol	0.855
74839	Methyl bromide (Bromomethane)	1
74873	Methyl chloride (Choromethane)	1
71556	Methyl chloroform (1,1,1-Trichloroethane)	1
78933	Methyl ethyl ketone (2-Butanone)	0.99
74884	Methyl iodide (Iodomethane)	1
108101	Methyl isobutyl ketone (Hexone)	0.979
624839	Methyl isocyanate	1
80626	Methyl methacrylate	0.999
1634044	Methyl tert butyl ether	1
75092	Methylene chloride (Dichloromethane)	1
91203	Naphthalene	0.994
98953	Nitrobenzene	0.394
79469	2-Nitropropane	0.989
82688	Pentachloronitrobenzene (Quintobenzene)	0.839
87865	Pentachlorophenol	0.0898
75445	Phosgene[c]	1
123386	Propionaldehyde	0.999
78875	Propylene dichloride (1,2-Dichloropropane)	1
75569	Propylene oxide	1
75558	1,2-Propylenimine (2-Methyl aziridine)	0.945
100425	Styrene	1
96093	Styrene oxide	0.83
79345	1,1,2,2-Tetrachloroethane	0.999
127184	Tetrachloroethylene (Perchloroethylene)	1
108883	Toluene	1
95534	o-Toluidine	0.152
120821	1,2,4-Trichlorobenzene	1
71556	1,1,1-Trichloroethane (Methyl chlorform)	1
79005	1,1,2-Trichloroethane (Vinyl trichloride)	1

79016	Trichloroethylene	1
95954	2,4,5-Trichlorophenol	0.108
88062	2,4,6-Trichlorophenol	0.132
121448	Triethylamine	1
540841	2,2,4-Trimethylpentane	1
108054	Vinyl acetate	1
593602	Vinyl bromide	1
75014	Vinyl chloride	1
75354	Vinylidene chloride (1,1-Dichloroethylene)	1
1330207	Xylenes (isomers and mixture)	1
95476	o-Xylenes	1
108383	m-Xylenes	1
106423	p-Xylenes	1

Notes:

$f_{m\ 305}$ = Fraction measure factor in Method 305, 40 CFR part 63, appendix A.

[a] CAS numbers refer to the Chemical Abstracts Services registry number assigned to specific compounds, isomers, or mixtures of compounds.

[b] Denotes a HAP that hydrolyzes quickly in water, but the hydrolysis products are also HAP chemicals.

[c] Denotes a HAP that may react violently with water.

[d] Denotes a HAP that hydrolyzes slowly in water.

[e] The $f_{m\ 305}$ factors for some of the more common glycol ethers can be obtained by contacting the Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711.

Table 2 to Subpart GGGGG of Part 63-- Control Levels as Required by §63.7895(a) for Tanks Managing Remediation Material with a Maximum HAP Vapor Pressure Less Than 76.6 kPa

If your tank design capacity is ...	And the maximum HAP vapor pressure of the remediation material placed in your tank is ...	Then your tank must use ...

1. less than 38 m^3	less than 76.6 kPa	Tank Level 1 controls under §63.7895(b)
2. at least 38 m^3 but less than 151 m^3	less than 13.1 kPa	Tank Level 1 controls under §63.7895(b)
3. 151 m^3 or greater	less than 0.7 kPa	Tank Level 1 controls under §63.7895(b)
4. at least 38 m^3 but less than 151 m^3	13.1 kPa or greater	Tank Level 2 controls under §63.7895(c)
5. 151 m^3 or greater	0.7 kPa or greater	Tank Level 2 controls under §63.7895(c)

As stated in §63.7940, you must comply with the applicable General Provisions requirements according to the following table:

Table 3 to Subpart GGGGG of Part 63--Applicability of General Provisions to Subpart GGGGG

Citation	Subject	Brief Description	Applies to subpart GGGGG
§63.1	Applicability	Initial Applicability Determination; Applicability After Standard Established; Permit Requirements; Extensions, Notifications	Yes
§63.2	Definitions	Definitions for part 63 standards	Yes
§63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes
§63.4	Prohibited Activities	Prohibited Activities; Compliance date; Circumvention, Severability	Yes
§63.5	Construction/ Reconstruction	Applicability; applications; approvals	Yes
§63.6(a)	Applicability	General Provisions (GP) apply unless compliance extension GP apply to area sources that become major	Yes
§63.6(b)(1)-(4)	Compliance Dates for New and Reconstructed sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for 112(f)	Yes
§63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes
§63.6(b)(6)	[Reserved]		

§63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source	Yes
§63.6(c)(1)-(2)	Compliance Dates for Existing Sources	Comply according to date in subpart, which must be no later than 3 years after effective date For 112(f) standards, comply within 90 days of effective date unless compliance extension	Yes
§63.6(c)(3)-(4)	[Reserved]		
§63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major	Area sources that become major must comply with major source standards by date indicated in subpart or by equivalent time period (for example, 3 years)	Yes
§63.6(d)	[Reserved]		
§63.6(e)(1)-(2)	Operation & Maintenance	Operate to minimize emissions at all times Correct malfunctions as soon as practicable Operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met	Yes
§63.6(e)(3)	Startup, Shutdown, and Malfunction Plan (SSMP)	Requirement for startup, shutdown and malfunction (SSM) and SSMP Content of SSMP	Yes with the exception of containers using either Level 1 or Level 2 controls.
§63.6(f)(1)	Compliance Except During SSM	You must comply with emissions standards at all times except during SSM	Yes

§63.6(f)(2)-(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes
§63.6(g)(1)-(3)	Alternative Standard	Procedures for getting an alternative standard	Yes
§63.6(h)	Opacity/Visible Emissions (VE) Standards	Requirements for opacity and visible emissions limits	No. no opacity standards.
§63.6(i)(1)-(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes
§63.6(j)	Presidential Compliance Exemption	President may exempt source category from requirement to comply with final rule.	Yes
§63.7(a)(1)-(2)	Performance Test Dates	Dates for Conducting Initial Performance Testing and Other Compliance Demonstrations. Must conduct 180 days after first subject to final rule.	Yes
§63.7(a)(3)	CAA Section 114 Authority	Administrator may require a performance test under CAA section 114 at any time.	Yes
§63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test.	Yes
§63.7(b)(2)	Notification of Rescheduling	If rescheduling a performance test is necessary, must notify Administrator 5 days before scheduled date of rescheduled date.	Yes
§63.7(c)	Quality Assurance/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with: Test plan approval procedures Performance audit requirements Internal and External QA procedures for testing	Yes

§63.7(d)	Testing Facilities	Requirements for testing facilities	Yes
§63.7(e)(1)	Conditions for Conducting Performance Tests	Performance tests must be conducted under representative conditions. Cannot conduct performance tests during SSM. Not a violation to exceed standard during SSM.	Yes
§63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to rule and EPA test methods unless Administrator approves alternative.	Yes
§63.7(e)(3)	Test Run Duration	Must have three test runs of at least one hour each. Compliance is based on arithmetic mean of three runs. Conditions when data from an additional test run can be used.	Yes
§63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an alternative test method.	Yes
§63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report. Must submit performance test data 60 days after end of test with the Notification of Compliance Status. Keep data for 5 years.	Yes
§63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes
§63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes
§63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of part 60 apply	Yes
§63.8(a)(3)	[Reserved]		

§63.8(a)(4)	Monitoring with Flares	Unless your rule says otherwise, the requirements for flares in 63.11 apply.	Yes
§63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative.	Yes
§63.8(b)(2)-(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems Must install on each effluent before it is combined and before it is released to the atmosphere unless Administrator approves otherwise. If more than one monitoring system on an emissions point, must report all monitoring system results, unless one monitoring system is a backup.	Yes
§63.8(c)(1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices.	Yes
§63.8(c)(1)(i)	Routine and Predictable SSM	Follow the SSM plan for routine repairs. Keep parts for routine repairs readily available. Reporting requirements for SSM when action is described in SSM plan.	Yes
§63.8(c)(1)(ii)	SSM not in SSMP	Reporting requirements for SSM when action is not described in SSM plan.	Yes
§63.8(c)(1)(iii)	Compliance with Operation and Maintenance (O&M) Requirements	How Administrator determines if source complying with operation and maintenance requirements. Review of source O&M procedures, records, Manufacturer's instructions, recommendations, and inspection of monitoring system	Yes

§63.8(c)(2)-(3)	Monitoring System Installation	Must install to get representative emissions and parameter measurements. Must verify operational status before or at performance test.	Yes
§63.8(c)(4)	Continuous Monitoring System (CMS) Requirements	CMS must be operating except during breakdown, out-of-control, repair, maintenance, and high-level calibration drifts.	No
§63.8(c)(4)(i)-(ii)	Continuous Monitoring System (CMS) Requirements	COMS must have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period. CEMS must have a minimum of one cycle of operation for each successive 15-minute period.	Yes. However, COMS are not applicable. Requirements for CPMS are listed in §§63.7900 and 63.7913.
§63.8(c)(5)	COMS Minimum Procedures	COMS minimum procedures	No
§63.8(c)(6)	CMS Requirements	Zero and High level calibration check requirements	Yes. However requirements for CPMS are addressed in §§63.7900 and 63.7913.
§63.8(c)(7)-(8)	CMS Requirements	Out-of-control periods, including reporting	Yes
§63.8(d)	CMS Quality Control	Requirements for CMS quality control, including calibration, etc. Must keep quality control plan on record for 5 years. Keep old versions for 5 years after revisions.	Yes
§63.8(e)	CMS Performance Evaluation	Notification, performance evaluation test plan, reports	Yes
§63.8(f)(1)-(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	Yes

§63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for CEMS	No
§63.8(g)(1)-(4)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points. CEMS 1-hour averages computed over at least four equally spaced data points.	Yes. However, COMS are not applicable. Requirements for CPMS are addressed in §§63.7900 and 63.7913.
§63.8(g)(5)	Data Reduction	Data that cannot be used in computing averages for CEMS and COMS.	No
§63.9(a)	Notification Requirements	Applicability and State Delegation	Yes
§63.9(b)(1)-(5)	Initial Notifications	Submit notification 120 days after effective date. Notification of intent to construct/ reconstruct; Notification of commencement of construct/ reconstruct; Notification of startup Contents of each	Yes
§63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed BACT/LAER	Yes
§63.9(d)	Notification of Special Compliance Requirements for New Source	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes
§63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes
§63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No

§63.9(g)	Additional Notifications When Using CMS	Notification of performance evaluation Notification using COMS data Notification that exceeded criterion for relative accuracy	Yes. However, there are no opacity standards.
§63.9(h)(1)-(6)	Notification of Compliance Status	Contents Due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after. When to submit to Federal vs. State authority	Yes
§63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted	Yes
§63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes
§63.10(a)	Record keeping/ Reporting	Applies to all, unless compliance extension When to submit to Federal vs. State authority Procedures for owners of more than 1 source	Yes
§63.10(b)(1)	Record keeping/ Reporting	General Requirements Keep all records readily available Keep for 5 years	Yes

§63.10(b)(2)(i)-(iv)	Records related to SSM	Occurrence of each of operation (process equipment) Occurrence of each malfunction of air pollution equipment Maintenance on air pollution control equipment Actions during startup, shutdown, and malfunction	Yes
§63.10(b)(2)(vi) and (x - xi)	CMS Records	Malfunctions, inoperative, out-of-control Calibration checks Adjustments, maintenance	Yes
§63.10(b)(2)(vii)-(ix)	Records	Measurements to demonstrate compliance with emissions limitations Performance test, performance evaluation, and visible emissions observation results Measurements to determine conditions of performance tests and performance evaluations.	Yes
§63.10(b)(2)(xii)	Records	Records when under waiver	Yes
§63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	No
§63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status	Yes
§63.10(b)(3)	Records	Applicability Determinations	Yes
§63.10(c)	Records	Additional Records for CMS	No

§63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes
§63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes
§63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	No
§63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes
§63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	Contents and submission	Yes
§63.10(e)(1)-(2)	Additional CMS Reports	Must report results for each CEM on a unit Written copy of performance evaluation Three copies of COMS performance evaluation	Yes. However, COMS are not applicable
§63.10(e)(3)	Reports	Excess Emissions Reports	No
§63.10(e)(3)(i-iii)	Reports	Schedule for reporting excess emissions and parameter monitor exceedance (now defined as deviations)	No
§63.10(e)(3)(iv-v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedance (now defined as deviations) Provision to request semiannual reporting after compliance for one year Submit report by 30th day following end of quarter or calendar half If there has not been an exceedance or excess emissions (now defined as deviations), report contents is a statement that there have been no deviations	No

§63.10(e)(3)(iv-v)	Excess Emissions Reports	Must submit report containing all of the information in §§63.10(c)(5-13) and 63.8(c)(7-8)	No
§63.10(e)(3)(vi-viii)	Excess Emissions Report and Summary Report	Requirements for reporting excess emissions for CMSs (now called deviations) Requires all of the information in §§63.10(c)(5-13) and 63.8(c)(7-8)	No
§63.10(e)(4)	Reporting COMS data	Must submit COMS data with performance test data	No
§63.10(f)	Waiver for Record keeping/ Reporting	Procedures for Administrator to waive	Yes
§63.11	Flares	Requirements for flares	Yes
§63.12	Delegation	State authority to enforce standards	Yes
§63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes
§63.14	Incorporation by Reference	Test methods incorporated by reference	Yes
§63.15	Availability of Information	Public and confidential information	Yes

19. The following insignificant emissions units are located at this facility:

G001 - refinery gasoline/distillate dispensing facility for plant vehicles (PR 164966/164967/164968/164969);
T183 - organic liquid storage tank #100272;
T188 - stability additive storage tank;
T193 - organic liquid storage tank #100471;
Z016 - storage tanks for organic liquids, less than or equal to 10,000 gallons, vapor pressure less than 1.5 psia with submerged fill; and
Z026 - solvent degreasers.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more applicable

requirements contained in the SIP-approved versions of OAC Chapters 3745-17, 3745-18, and 3745-21.

B. State Only Enforceable Section

1. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

P035 - two diesel-operated firewater pumps;
Z015 - storage tanks for inorganic liquids;
Z017 - storage tanks for acids, less than 7,500 gallons;
Z018 - sulfur storage pit;
Z025 - loading rack for iso/alky/normal butane;
Z029 - advanced wastewater treatment plant aeration tanks A and B; and
Z042 - coke pile.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process Heater (B001)
Activity Description: Refinery Fuel Gas or Natural Gas Fired Vacuum Unit II heater (PR 175151)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
refinery fuel gas or natural gas fired vacuum unit II heater, 162 million Btu/hr maximum (PR 175151)	OAC rule 3745-17-10(B)(1)	0.020 pound of particulate emissions (PE) per million Btu of actual heat input
	OAC rule 3745-18-08(C)(1)	0.15 pound of sulfur dioxide (SO2) per million Btu of actual heat input
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	40 CFR Part 63, Subpart DDDDD	See section A.I.2.a.
	40 CFR Part 63, Subpart A	See section A.I.2.b.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.17, for the requirements of 40 CFR Part 63, Subpart DDDDD; - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The requirements of 40 CFR Part 63, Subpart DDDDD will become applicable to this emissions unit upon final promulgation in the Federal Register.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall burn only refinery fuel gas or natural gas in this emissions unit. The sulfur content of the refinery fuel gas or natural gas burned in this emissions unit shall comply with the allowable SO2 emission limitation specified in section A.I.1.

III. Monitoring and/or Record keeping

1. Samples of refinery fuel gas burned in this emissions unit shall be obtained on a monthly basis, and analyzed for heat content, density and sulfur content. The following ASTM sampling and analysis methods shall be used to obtain data for use in calculating the SO2 emission rate as outlined in section A.III.2 below:

   a. molar composition of refinery fuel gas - ASTM Method D2163; and

   b. heat content of refinery fuel gas - ASTM Method D2421.

2. The permittee shall record on a monthly basis, the calculated SO2 emission rate in pound per million Btu. The monthly SO2 emission rate shall be calculated in accordance with OAC rule 3745-18-04(F)(3), as follows:

   ER = (1 x 10^6)/H x D x S x 1.998

   where:

   ER = the emission rate in pounds of SO2 per million Btu;

   H = the heat content of the gaseous fuel in Btu per standard cubic foot;

   D = the density of the gaseous fuel in pounds per standard cubic foot; and

   S = the decimal fraction of sulfur in the gaseous fuel.

3. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the SO2 emission limitation of 0.15 pound of SO2 per million Btu of actual heat input was exceeded, based upon the calculations specified in section A.III.2.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.020 pound of PE per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 5 and the requirements specified in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation:

0.15 pound of SO2 per million Btu of actual heat input

Applicable Compliance Method:

The monitoring, record keeping and reporting requirements in sections A.III.2 and A.IV.1 of this permit shall be used to demonstrate compliance with the above limitation. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6 and the requirements specified in OAC rule 3745-18-04(E)(1).

1.c Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process Heaters (B002)
Activity Description: Refinery Fuel Gas or Natural Gas fired ISO Stabilizer/Splitter Heaters (PR 170003/PR 175155)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
refinery fuel gas or natural gas fired ISO stabilizer/splitter heaters, 369 million Btu/hr maximum, combined heat input (PR 170003/PR 175155)	OAC rule 3745-17-10(B)(1)	0.020 pound of particulate emissions (PE) per million Btu of actual heat input
	OAC rule 3745-18-08(C)(2)	1.0 pound of sulfur dioxide (SO2) per million Btu of actual heat input
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	40 CFR Part 63, Subpart DDDDD	See section A.I.2.a.
	40 CFR Part 63, Subpart A	See section A.I.2.b.

2. **Additional Terms and Conditions**

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.17, for the requirements of 40 CFR Part 63, Subpart DDDDD; - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The requirements of 40 CFR Part 63, Subpart DDDDD will become applicable to this emissions unit upon final promulgation in the Federal Register.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall burn only refinery fuel gas or natural gas in this emissions unit. The sulfur content of the refinery fuel gas or natural gas burned in this emissions unit shall comply with the allowable SO2 emission limitation specified in section A.I.1.

III. Monitoring and/or Record keeping

1. Samples of refinery fuel gas burned in this emissions unit shall be obtained on a monthly basis, and analyzed for heat content, density and sulfur content. The following ASTM sampling and analysis methods shall be used to obtain data for use in calculating the SO2 emission rate as outlined in section A.III.2 below:

   a. molar composition of refinery fuel gas - ASTM Method D2163; and

   b. heat content of refinery fuel gas - ASTM Method D2421.

2. The permittee shall record on a monthly basis, the calculated SO2 emission rate in pound per million Btu. The monthly SO2 emission rate shall be calculated in accordance with OAC rule 3745-18-04(F)(3), as follows:

   ER = (1 x 10^6)/H x D x S x 1.998

   where:

   ER = the emission rate in pounds of SO2 per million Btu;

   H = the heat content of the gaseous fuel in Btu per standard cubic foot;

   D = the density of the gaseous fuel in pounds per standard cubic foot; and

   S = the decimal fraction of sulfur in the gaseous fuel.

3. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the SO2 emission limitation of 1.0 pound of SO2 per million Btu of actual heat input was exceeded, based upon the calculations specified in section A.III.2.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.020 pound of PE per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 5 and the requirements specified in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation:

1.0 pound of SO2 per million Btu of actual heat input

Applicable Compliance Method:

The monitoring, record keeping and reporting requirements in sections A.III.2 and A.IV.1 of this permit shall be used to demonstrate compliance with the above limitation. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6 and the requirements specified in OAC rule 3745-18-04(E)(1).

1.c Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process Heaters (B003)
Activity Description: Refinery Fuel Gas or Natural Gas fired ISO I & II Heaters (PR 175152/PR 175153)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
refinery fuel gas or natural gas fired ISO I and II heaters, 109 million Btu/hr maximum, combined heat input (PR 175152/PR 175153)	OAC rule 3745-17-10(B)(1)	0.020 pound of particulate emissions (PE) per million Btu of actual heat input
	OAC rule 3745-18-08(C)(1)	0.15 pound of sulfur dioxide (SO2) per million Btu of actual heat input
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	40 CFR Part 63, Subpart DDDDD	See section A.I.2.a.
	40 CFR Part 63, Subpart A	See section A.I.2.b.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.17, for the requirements of 40 CFR Part 63, Subpart DDDDD; - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The requirements of 40 CFR Part 63, Subpart DDDDD will become applicable to this emissions unit upon final promulgation in the Federal Register.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall burn only refinery fuel gas or natural gas in this emissions unit. The sulfur content of the refinery fuel gas or natural gas burned in this emissions unit shall comply with the allowable SO2 emission limitation specified in section A.I.1.

III. Monitoring and/or Record keeping

1. Samples of refinery fuel gas burned in this emissions unit shall be obtained on a monthly basis, and analyzed for heat content, density and sulfur content. The following ASTM sampling and analysis methods shall be used to obtain data for use in calculating the SO2 emission rate as outlined in section A.III.2 below:

   a. molar composition of refinery fuel gas - ASTM Method D2163; and

   b. heat content of refinery fuel gas - ASTM Method D2421.

2. The permittee shall record on a monthly basis, the calculated SO2 emission rate in pound per million Btu. The monthly SO2 emission rate shall be calculated in accordance with OAC rule 3745-18-04(F)(3), as follows:

   ER = (1 x 10^6)/H x D x S x 1.998

   where:

   ER = the emission rate in pounds of SO2 per million Btu;

   H = the heat content of the gaseous fuel in Btu per standard cubic foot;

   D = the density of the gaseous fuel in pounds per standard cubic foot; and

   S = the decimal fraction of sulfur in the gaseous fuel.

3. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the SO2 emission limitation of 0.15 pound of SO2 per million Btu of actual heat input was exceeded, based upon the calculations specified in section A.III.2.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.020 pound of PE per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 5 and the requirements specified in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation:

0.15 pound of SO2 per million Btu of actual heat input

Applicable Compliance Method:

The monitoring, record keeping and reporting requirements in sections A.III.2 and A.IV.1 of this permit shall be used to demonstrate compliance with the above limitation. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6 and the requirements specified in OAC rule 3745-18-04(E)(1).

1.c Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process Heater (B004)
Activity Description: Refinery Fuel Gas or Natural Gas fired Crude II Heater (PR 175150)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
refinery fuel gas or natural gas fired crude II heater; 630 million Btu/hr maximum with low NOx burners (PR 175150)	OAC rule 3745-17-10(B)(1)	0.020 pound of particulate emissions (PE) per million Btu of actual heat input
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-18-08(C)(2)	1.0 pound of sulfur dioxide (SO2) per million Btu of actual heat input
	OAC rule 3745-23-06(B)	Minimize nitrogen oxides (NOx) emissions by use of the latest available control techniques and operating practices in accordance with best current technology (see A.I.2.c)
	OAC rule 3745-21-08(B)	See section A.I.2.c.
	OAC rule 3745-31-05(A)(3) (PTI No. 03-13794)	0.10 lb of NOx per million Btu of actual heat input, 275.94 tons of NOx/yr

	25.20 lbs of carbon monoxide (CO)/hr, 110.38 tons of CO/yr
	See section A.I.2.b.
OAC rule 3745-31-05(C) (PTI No. 03-13794)	See section A.I.2.a.
40 CFR Part 63, Subpart DDDDD	See section A.I.2.d.
40 CFR Part 63, Subpart A	See section A.I.2.e.

2. Additional Terms and Conditions

2.a The permittee has requested a federally enforceable limitation for NOx of 0.10 lb per million Btu of actual heat input, 275.94 tons NOx/yr, 25.20 lbs CO/hr, and 110.38 tons CO/yr. The federally enforceable limitations shall be established in accordance with OAC rule 3745-31-05(A)(3). The permittee has requested federally enforceable NOx and CO emission limitations for purposes of avoiding Prevention of Significant Deterioration (PSD) permitting by emissions netting, as established in PTI No. 03-13794.

2.b Best Available Technology (BAT) control requirements for this emissions unit have been determined to be use of low NOx burners meeting 0.10 lb NOx per million Btu of actual heat input.

2.c The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology control requirements established pursuant to OAC rule 3745-31-05(A)(3) in PTI 03-13794.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.d Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.17, for the requirements of 40 CFR Part 63, Subpart DDDDD; - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The requirements of 40 CFR Part 63, Subpart DDDDD will become applicable to this emissions unit upon final promulgation in the Federal Register.

2.e Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall burn only refinery fuel gas or natural gas in this emissions unit. The sulfur content of the refinery fuel gas or natural gas burned in this emissions unit shall comply with the allowable SO2 emission limitation specified in section A.I.1.

III. Monitoring and/or Record keeping

1. Samples of refinery fuel gas burned in this emissions unit shall be obtained on a monthly basis, and analyzed for heat content, density and sulfur content. The following ASTM sampling and analysis methods shall be used to obtain data for use in calculating the SO2 emission rate as outlined in section A.III.2 below:

   a. molar composition of refinery fuel gas - ASTM Method D2163; and

   b. heat content of refinery fuel gas - ASTM Method D2421.

   The permittee may also use online analyzers at the facility that have equivalent capability to determine the molar composition and heat content for the ASTM Methods D2163 and D2421.

2. The permittee shall record on a monthly basis, the calculated SO2 emission rate in pounds per million Btu. The monthly SO2 emission rate shall be calculated in accordance with OAC rule 3745-18-04(F)(3), as follows:

   ER = (1 x 10^6)/H x D x S x 1.998

   where:

   ER = the emission rate in pounds of SO2 per million Btu;

   H = the heat content of the gaseous fuel in Btu per standard cubic foot;

   D = the density of the gaseous fuel in pounds per standard cubic foot; and

   S = the decimal fraction of sulfur in the gaseous fuel.

3. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the SO2 emission limitation of 1.0 pound of SO2 per million Btu of actual heat input was exceeded, based upon the calculations specified in section A.III.2.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.020 pound of PE per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by dividing the appropriate particulate emission factor of 1.9 pounds per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), by the heat content of 853 Btu per standard cubic feet for the refinery fuel gas fired in this emissions unit. If natural gas is solely being fired, the permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 5 and the requirements specified in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

1.c Emission Limitation:

1.0 pound of SO2 per million Btu of actual heat input

Applicable Compliance Method:

The monitoring, record keeping and reporting requirements in sections A.III.1, A.III.2, A.III.3 and A.IV of this permit shall be used to demonstrate compliance with the above limitation. The monthly SO2 emissions shall be calculated in accordance with the equation in OAC rule 3745-18-04(F)(3). If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6 and the requirements specified in OAC rule 3745-18-04(E)(1).

1.d Emission Limitations:

0.10 lb of NOx per million Btu of actual heat input
275.94 tons of NOx/yr

Applicable Compliance Method:

Compliance with the lb of NOx per million Btu emission limitation shall be demonstrated by the performance testing required in section A.V.2.

The annual emission limitation was derived by multiplying the 0.10 lb of NOx per million Btu emission limitation times the maximum heat input capacity of 630 million Btu/hr for the crude II heater, then multiplying by 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the lb/million Btu emission limitation is maintained.

1.e Emission Limitations:

25.20 lbs of CO/hr
110.38 tons of CO/yr

Applicable Compliance Method:

Compliance with the hourly mass emission limitation shall be demonstrated by the performance testing required in section A.V.2.

The annual emission limitation was derived by multiplying the hourly emission limitation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

   a. The emission testing shall be conducted within 12 months of the issuance of this permit and annually thereafter. The emission testing schedule contained in PTI No. 03-13794 may be used to satisfy the initial 12 month testing period in this permit.

   b. The emission testing shall be conducted to demonstrate compliance with the allowable emission rate of 0.10 lb of NOx per million Btu of actual heat input and the allowable mass emission rate for CO.

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for NOx, Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A; for CO, Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

   d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

   Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

   Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

   A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

None

Emissions Unit: **Process Heater (B004)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process Heater (B005)
Activity Description: Refinery Fuel Gas or Natural Gas fired Reformate Splitter Reboiler (PR 175168)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
refinery fuel gas or natural gas fired reformate splitter reboiler, 118 million Btu/hr maximum (PR 175168)	OAC rule 3745-17-10(B)(1)	0.020 pound of particulate emissions (PE) per million Btu of actual heat input
	OAC rule 3745-18-08(C)(2)	1.0 pound of sulfur dioxide (SO2) per million Btu of actual heat input
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	40 CFR Part 63, Subpart DDDDD	See section A.I.2.a.
	40 CFR Part 63, Subpart A	See section A.I.2.b.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.17, for the requirements of 40 CFR Part 63, Subpart DDDDD; - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The requirements of 40 CFR Part 63, Subpart DDDDD will become applicable to this emissions unit upon final promulgation in the Federal Register.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall burn only refinery fuel gas or natural gas in this emissions unit. The sulfur content of the refinery fuel gas or natural gas burned in this emissions unit shall comply with the allowable SO2 emission limitation specified in section A.I.1.

III. Monitoring and/or Record keeping

1. Samples of refinery fuel gas burned in this emissions unit shall be obtained on a monthly basis, and analyzed for heat content, density and sulfur content. The following ASTM sampling and analysis methods shall be used to obtain data for use in calculating the SO2 emission rate as outlined in section A.III.2 below:

   a. molar composition of refinery fuel gas - ASTM Method D2163; and

   b. heat content of refinery fuel gas - ASTM Method D2421.

2. The permittee shall record on a monthly basis, the calculated SO2 emission rate in pound per million Btu. The monthly SO2 emission rate shall be calculated in accordance with OAC rule 3745-18-04(F)(3), as follows:

   ER = (1 x 10^6)/H x D x S x 1.998

   where:

   ER = the emission rate in pounds of SO2 per million Btu;

   H = the heat content of the gaseous fuel in Btu per standard cubic foot;

   D = the density of the gaseous fuel in pounds per standard cubic foot; and

   S = the decimal fraction of sulfur in the gaseous fuel.

3. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the SO2 emission limitation of 1.0 pound of SO2 per million Btu of actual heat input was exceeded, based upon the calculations specified in section A.III.2.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.020 pound of PE per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 5 and the requirements specified in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation:

1.0 pound of SO2 per million Btu of actual heat input

Applicable Compliance Method:

The monitoring, record keeping and reporting requirements in sections A.III.2 and A.IV.1 of this permit shall be used to demonstrate compliance with the above limitation. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6 and the requirements specified in OAC rule 3745-18-04(E)(1).

1.c Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the methods specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit: **Process Heater (B005)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process Heaters (B006)
Activity Description: Refinery Fuel Gas or Natural Gas fired U/F PRE, 1, 2, & 3 Heater (PR 175156-175159)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
refinery fuel gas or natural gas fired U/F PRE, 1, 2, & 3 heater; 1,954 million Btu/hr maximum, combined heat input (PR 175156/PR 175157/ PR 175158/PR 175159)	OAC rule 3745-17-10(B)(1)	0.020 pound of particulate emissions (PE) per million Btu of actual heat input
	OAC rule 3745-18-08(C)(1)	0.15 pound of sulfur dioxide (SO2) per million Btu of actual heat input
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	40 CFR Part 63, Subpart DDDDD	See section A.I.2.a.
	40 CFR Part 63, Subpart A	See section A.I.2.b.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.17, for the requirements of 40 CFR Part 63, Subpart DDDDD; - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The requirements of 40 CFR Part 63, Subpart DDDDD will become applicable to this emissions unit upon final promulgation in the Federal Register.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall burn only refinery fuel gas or natural gas in this emissions unit. The sulfur content of the refinery fuel gas or natural gas burned in this emissions unit shall comply with the allowable SO2 emission limitation specified in section A.I.1.

III. Monitoring and/or Record keeping

1. Samples of refinery fuel gas burned in this emissions unit shall be obtained on a monthly basis, and analyzed for heat content, density and sulfur content. The following ASTM sampling and analysis methods shall be used to obtain data for use in calculating the SO2 emission rate as outlined in section A.III.2 below:

   a. molar composition of refinery fuel gas - ASTM Method D2163; and

   b. heat content of refinery fuel gas - ASTM Method D2421.

2. The permittee shall record on a monthly basis, the calculated SO2 emission rate in pound per million Btu. The monthly SO2 emission rate shall be calculated in accordance with OAC rule 3745-18-04(F)(3), as follows:

   ER = (1 x 10^6)/H x D x S x 1.998

   where:

   ER = the emission rate in pounds of SO2 per million Btu;

   H = the heat content of the gaseous fuel in Btu per standard cubic foot;

   D = the density of the gaseous fuel in pounds per standard cubic foot; and

   S = the decimal fraction of sulfur in the gaseous fuel.

3. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the SO2 emission limitation of 0.15 pound of SO2 per million Btu of actual heat input was exceeded, based upon the calculations specified in section A.III.2.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.020 pound of PE per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 5 and the requirements specified in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation:

0.15 pound of SO2 per million Btu of actual heat input

Applicable Compliance Method:

The monitoring, record keeping and reporting requirements in sections A.III.2 and A.IV.1 of this permit shall be used to demonstrate compliance with the above limitation. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6 and the requirements specified in OAC rule 3745-18-04(E)(1).

1.c Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process Heater (B007)
Activity Description: Refinery Fuel Gas or Natural Gas fired Reformer Regenerator Heater (PR 175162)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
refinery fuel gas or natural gas fired reformer regenerator heater, 110 million Btu/hr maximum (PR 175162)	OAC rule 3745-17-10(B)(1)	0.020 pound of particulate emissions (PE) per million Btu of actual heat input
	OAC rule 3745-18-08(C)(1)	0.15 pound of sulfur dioxide (SO2) per million Btu of actual heat input
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	40 CFR Part 63, Subpart DDDDD	See section A.I.2.a.
	40 CFR Part 63, Subpart A	See section A.I.2.b.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.17, for the requirements of 40 CFR Part 63, Subpart DDDDD; - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The requirements of 40 CFR Part 63, Subpart DDDDD will become applicable to this emissions unit upon final promulgation in the Federal Register.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall burn only refinery fuel gas or natural gas in this emissions unit. The sulfur content of the refinery fuel gas or natural gas burned in this emissions unit shall comply with the allowable SO2 emission limitation specified in section A.I.1.

III. Monitoring and/or Record keeping

1. Samples of refinery fuel gas burned in this emissions unit shall be obtained on a monthly basis, and analyzed for heat content, density and sulfur content. The following ASTM sampling and analysis methods shall be used to obtain data for use in calculating the SO2 emission rate as outlined in section A.III.2 below:

   a. molar composition of refinery fuel gas - ASTM Method D2163; and

   b. heat content of refinery fuel gas - ASTM Method D2421.

2. The permittee shall record on a monthly basis, the calculated SO2 emission rate in pound per million Btu. The monthly SO2 emission rate shall be calculated in accordance with OAC rule 3745-18-04(F)(3), as follows:

   ER = (1 x 10^6)/H x D x S x 1.998

   where:

   ER = the emission rate in pounds of SO2 per million Btu;

   H = the heat content of the gaseous fuel in Btu per standard cubic foot;

   D = the density of the gaseous fuel in pounds per standard cubic foot; and

   S = the decimal fraction of sulfur in the gaseous fuel.

3. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the SO2 emission limitation of 0.15 pound of SO2 per million Btu of actual heat input was exceeded, based upon the calculations specified in section A.III.2.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.020 pound of PE per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 5 and the requirements specified in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation:

0.15 pound of SO2 per million Btu of actual heat input

Applicable Compliance Method:

The monitoring, record keeping and reporting requirements in sections A.III.2 and A.IV.1 of this permit shall be used to demonstrate compliance with the above limitation. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6 and the requirements specified in OAC rule 3745-18-04(E)(1).

1.c Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit: **Process Heater (B007)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process Heater (B008)
Activity Description: Refinery Fuel Gas or Natural Gas fired HDS Heater (PR 175169)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
refinery fuel gas or natural gas fired HDS heater, 278 million Btu/hr maximum (PR 175169)	OAC rule 3745-17-10(B)(1)	0.020 pound of particulate emissions (PE) per million Btu of actual heat input
	OAC rule 3745-18-08(C)(1)	0.15 pound of sulfur dioxide (SO2) per million Btu of actual heat input
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	40 CFR Part 63, Subpart DDDDD	See section A.I.2.a.
	40 CFR Part 63, Subpart A	See section A.I.2.b.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.17, for the requirements of 40 CFR Part 63, Subpart DDDDD; - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The requirements of 40 CFR Part 63, Subpart DDDDD will become applicable to this emissions unit upon final promulgation in the Federal Register.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall burn only refinery fuel gas or natural gas in this emissions unit. The sulfur content of the refinery fuel gas or natural gas burned in this emissions unit shall comply with the allowable SO2 emission limitation specified in section A.I.1.

III. Monitoring and/or Record keeping

1. Samples of refinery fuel gas burned in this emissions unit shall be obtained on a monthly basis, and analyzed for heat content, density and sulfur content. The following ASTM sampling and analysis methods shall be used to obtain data for use in calculating the SO2 emission rate as outlined in section A.III.2 below:

   a. molar composition of refinery fuel gas - ASTM Method D2163; and

   b. heat content of refinery fuel gas - ASTM Method D2421.

2. The permittee shall record on a monthly basis, the calculated SO2 emission rate in pound per million Btu. The monthly SO2 emission rate shall be calculated in accordance with OAC rule 3745-18-04(F)(3), as follows:

   ER = (1 x 10^6)/H x D x S x 1.998

   where:

   ER = the emission rate in pounds of SO2 per million Btu;

   H = the heat content of the gaseous fuel in Btu per standard cubic foot;

   D = the density of the gaseous fuel in pounds per standard cubic foot; and

   S = the decimal fraction of sulfur in the gaseous fuel.

3. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the SO2 emission limitation of 0.15 pound of SO2 per million Btu of actual heat input was exceeded, based upon the calculations specified in section A.III.2.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.020 pound of PE per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 5 and the requirements specified in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation:

0.15 pound of SO2 per million Btu of actual heat input

Applicable Compliance Method:

The monitoring, record keeping and reporting requirements in sections A.III.2 and A.IV.1 of this permit shall be used to demonstrate compliance with the above limitation. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6 and the requirements specified in OAC rule 3745-18-04(E)(1).

1.c Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit: **Process Heater (B008)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Steam Generating Unit (B009)
Activity Description: Refinery Fuel Gas or Natural Gas fired Riley Boiler (PR 175071)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
refinery fuel gas or natural gas fired Riley boiler, 240 million Btu/hr maximum (PR 175071)	OAC rule 3745-17-10(B)(1)	0.020 pound of particulate emissions (PE) per million Btu of actual heat input
	OAC rule 3745-18-08(C)(1)	0.15 pound of sulfur dioxide (SO2) per million Btu of actual heat input
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	40 CFR Part 63, Subpart DDDDD	See section A.I.2.a.
	40 CFR Part 63, Subpart A	See section A.I.2.b.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.17, for the requirements of 40 CFR Part 63, Subpart DDDDD; - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The requirements of 40 CFR Part 63, Subpart DDDDD will become applicable to this emissions unit upon final promulgation in the Federal Register.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall burn only refinery fuel gas or natural gas in this emissions unit. The sulfur content of the refinery fuel gas or natural gas burned in this emissions unit shall comply with the allowable SO2 emission limitation specified in section A.I.1.

III. Monitoring and/or Record keeping

1. Samples of refinery fuel gas burned in this emissions unit shall be obtained on a monthly basis, and analyzed for heat content, density and sulfur content. The following ASTM sampling and analysis methods shall be used to obtain data for use in calculating the SO2 emission rate as outlined in section A.III.2 below:

   a. molar composition of refinery fuel gas - ASTM Method D2163; and

   b. heat content of refinery fuel gas - ASTM Method D2421.

2. The permittee shall record on a monthly basis, the calculated SO2 emission rate in pound per million Btu. The SO2 emission rate shall be calculated in accordance with OAC rule 3745-18-04(F)(3), as follows:

   ER = (1 x 10^6)/H x D x S x 1.998

   where:

   ER = the emission rate in pounds of SO2 per million Btu;

   H = the heat content of the gaseous fuel in Btu per standard cubic foot;

   D = the density of the gaseous fuel in pounds per standard cubic foot; and

   S = the decimal fraction of sulfur in the gaseous fuel.

3. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the SO2 emission limitation of 0.15 pound of SO2 per million Btu of actual heat input was exceeded, based upon the calculations specified in section A.III.2.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.020 pound of PE per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 5 and the requirements specified in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation:

0.15 pound of SO2 per million Btu of actual heat input

Applicable Compliance Method:

The monitoring, record keeping and reporting requirements in sections A.III.2 and A.IV.1 of this permit shall be used to demonstrate compliance with the above limitation. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6 and the requirements specified in OAC rule 3745-18-04(E)(1).

1.c Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process Heater (B016)
Activity Description: Refinery Fuel Gas or Natural Gas fired FCC furnace (PR 175025)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
refinery fuel gas or natural gas fired FCC furnace, 112 million Btu/hr maximum (PR 175025)	OAC rule 3745-17-10(B)(1)	0.020 pound of particulate emissions (PE) per million Btu of actual heat input
	OAC rule 3745-18-08(C)(1)	0.15 pound of sulfur dioxide (SO2) per million Btu of actual heat input
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	40 CFR Part 63, Subpart DDDDD	See section A.I.2.a.
	40 CFR Part 63, Subpart A	See section A.I.2.b.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.17, for the requirements of 40 CFR Part 63, Subpart DDDDD; - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The requirements of 40 CFR Part 63, Subpart DDDDD will become applicable to this emissions unit upon final promulgation in the Federal Register.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall burn only refinery fuel gas or natural gas in this emissions unit. The sulfur content of the refinery fuel gas or natural gas burned in this emissions unit shall comply with the allowable SO2 emission limitation specified in section A.I.1.

III. Monitoring and/or Record keeping

1. Samples of refinery fuel gas burned in this emissions unit shall be obtained on a monthly basis, and analyzed for heat content, density and sulfur content. The following ASTM sampling and analysis methods shall be used to obtain data for use in calculating the SO2 emission rate as outlined in section A.III.2 below:

   a. molar composition of refinery fuel gas - ASTM Method D2163; and

   b. heat content of refinery fuel gas - ASTM Method D2421.

2. The permittee shall record on a monthly basis, the calculated SO2 emission rate in pound per million Btu. The monthly SO2 emission rate shall be calculated in accordance with OAC rule 3745-18-04(F)(3), as follows:

   ER = (1 x 10^6)/H x D x S x 1.998

   where:

   ER = the emission rate in pounds of SO2 per million Btu;

   H = the heat content of the gaseous fuel in Btu per standard cubic foot;

   D = the density of the gaseous fuel in pounds per standard cubic foot; and

   S = the decimal fraction of sulfur in the gaseous fuel.

3. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the SO2 emission limitation of 0.15 pound of SO2 per million Btu of actual heat input was exceeded, based upon the calculations specified in section A.III.2.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.020 pound of PE per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 5 and the requirements specified in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation:

0.15 pound of SO2 per million Btu of actual heat input

Applicable Compliance Method:

The monitoring, record keeping and reporting requirements in sections A.III.2 and A.IV.1 of this permit shall be used to demonstrate compliance with the above limitation. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6 and the requirements specified in OAC rule 3745-18-04(E)(1).

1.c Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit: **Process Heater (B016)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process Heater (B022)
Activity Description: Refinery Fuel Gas or Natural Gas fired Hot Belt Oil Heater-Arom (PR 175102)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
refinery fuel gas or natural gas fired hot oil belt heater - aromatics, 204 million Btu/hr maximum (PR 175102)	40 CFR Part 60, Subpart J	See section A.I.2.a.
	OAC rule 3745-17-10(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-31-05(A)(3) (PTI No. 03-1128)	0.014 pound of particulate emissions (PE) per million Btu of actual heat input 0.024 pound of sulfur dioxide (SO2) per million Btu of actual heat input 0.150 pound of nitrogen oxides (NOx) per million Btu of actual heat input
	OAC rule 3745-31-05(A)(3)(cont.)	

(PTI No. 03-1128)	0.016 pound of carbon monoxide (CO) per million Btu of actual heat input
40 CFR Part 63, Subpart DDDDD	See section A.I.2.b.
40 CFR Part 63, Subpart A	See section A.I.2.c.
	See section A.I.2.d.

2. Additional Terms and Conditions

2.a The permittee shall not burn any refinery fuel gas in this emissions unit that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume). This H2S standard in 40 CFR 60.104(a)(1) is also applicable if the permittee combines and combusts natural gas in any proportion with refinery fuel gas in this emissions unit, according to the fuel gas definition in 40 CFR 60.101(d).

2.b The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and 40 CFR 60.104(a)(1).

2.c Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.17, for the requirements of 40 CFR Part 63, Subpart DDDDD; - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The requirements of 40 CFR Part 63, Subpart DDDDD will become applicable to this emissions unit upon final promulgation in the Federal Register.

2.d Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall burn only refinery fuel gas or natural gas in this emissions unit.

III. Monitoring and/or Record keeping

1. In order to demonstrate compliance with the emission limitation of 230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume) of H2S in the refinery fuel gas (and if applicable, combined fuel firing as noted in A.I.2.a above), the permittee shall operate and maintain an instrument for continuously monitoring and recording the concentration (dry basis) of H2S in the refinery fuel gas or combined fuel stream before being burned in this emissions unit. The monitoring shall be conducted in accordance with 40 CFR 60.105(a)(4), as follows:

a. The span value for this instrument is 425 mg/dscm of H2S.

b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H2S in the fuel gas being burned.

c. The performance evaluations for this H2S monitor under 40 CFR 60.13(c) shall use Performance Specification 7 of 40 CFR 60, Appendix B. The permittee shall conduct an annual relative accuracy test audit (RATA) for the H2S continuous emission monitoring equipment. Method 11 of 40 CFR Part 60, Appendix A, or other approved U.S. EPA methods shall be used for conducting the annual RATAs.

2. A statement of certification of the existing H2S continuous emission monitoring system (CEMS) shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7. Proof of certification shall be made available to representatives of the appropriate Ohio EPA District Office or local air agency upon request.

3. The permittee shall operate and maintain existing equipment to continuously monitor and record hydrogen sulfide from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

   The permittee shall maintain records of all data obtained by the H2S CEMS including, but not limited to, parts per million of H2S on an instantaneous (1-minute) basis, emissions of H2S in units of the applicable standard (grain/dscf and parts per million by volume) as a rolling, 3-hour average, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

4. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the CEMS designed to ensure continuous valid and representative readings of H2S. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. A logbook dedicated to the monitoring system must be kept on site and available for inspection during regular office hours.

5. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas is burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit reports within thirty (30) days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any H2S CEMS downtime while the emissions unit was on line (date, time, duration, and reason), along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of source and CEMS malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included the quarterly report.

3. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) on a quarterly basis, in writing, of all rolling, 3-hour periods during which the average concentration of H2S as measured by the H2S CEMS under 40 CFR 60.105(a)(4) exceeds 230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume). The rolling, 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages. The notification shall include a copy of the record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) by January 30, April 30, July 30 and October 30 of each year and shall address the data obtained during previous calendar quarters.

4. If there are no concentrations of H2S in the refinery fuel gas (or combined fuel stream, if applicable) greater than 230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume) during the calendar quarter, then the permittee shall submit a statement to that effect along with the emissions unit and monitor operating times. These quarterly reports shall be submitted by January 30, April 30, July 30 and October 30 of each year and shall address the data obtained during previous calendar quarters.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume) of H2S in the refinery fuel gas, or combined fuel stream if applicable

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in sections A.III.1 and A.III.3 of this permit. If required, the permittee shall determine compliance with the H2S emission limitation by using Method 11 of 40 CFR Part 60, Appendix A, or other approved USEPA methods.

1.b Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

1.c Emission Limitation:

0.014 pound of PE per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Method 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:

0.024 pound of SO2 per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Method 6 of 40 CFR Part 60, Appendix A.

1.e Emission Limitation:

0.150 pound of NOx per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emission limitation based upon the emission testing requirements specified in section A.V.2. Ongoing compliance with this emission limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

1.f Emission Limitation:

0.016 pound of CO per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Method 10 of 40 CFR Part 60, Appendix A.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 1 year after permit issuance.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate of 0.150 pound of NOx per million Btu of actual heat input.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate of 0.150 pound of NOx per million Btu of actual heat input.

d. Method 7, 7A, 7B, 7C, 7D, or 7E of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior

to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

None

Emissions Unit: **Process Heater (B022)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process Heater (B024)
Activity Description: Refinery Fuel Gas or Natural Gas fired Isomerization heater (PR 175110)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
refinery fuel gas or natural gas fired isomerization heater, 59 million Btu/hr maximum (PR 175110)	40 CFR Part 60, Subpart J	See section A.I.2.a.
	OAC rule 3745-17-10(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-31-05(A)(3) (PTI No. 03-1128)	0.014 pound of particulate emissions (PE) per million Btu of actual heat input 0.024 pound of sulfur dioxide (SO2) per million Btu of actual heat input 0.150 pound of nitrogen oxides (NOx) per million Btu of actual heat input
	OAC rule 3745-31-05(A)(3)(cont.)	

(PTI No. 03-1128)	0.016 pound of carbon monoxide (CO) per million Btu of actual heat input
	See section A.I.2.b.
40 CFR Part 63, Subpart DDDDD	See section A.I.2.c.
40 CFR Part 63, Subpart A	See section A.I.2.d.

2. Additional Terms and Conditions

2.a The permittee shall not burn any refinery fuel gas in this emissions unit that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume). This H2S standard in 40 CFR 60.104(a)(1) is also applicable if the permittee combines and combusts natural gas in any proportion with refinery fuel gas in this emissions unit, according to the fuel gas definition in 40 CFR 60.101(d).

2.b The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and 40 CFR 60.104(a)(1).

2.c Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.17, for the requirements of 40 CFR Part 63, Subpart DDDDD; - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The requirements of 40 CFR Part 63, Subpart DDDDD will become applicable to this emissions unit upon final promulgation in the Federal Register.

2.d Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall burn only refinery fuel gas or natural gas in this emissions unit.

III. Monitoring and/or Record keeping

1. In order to demonstrate compliance with the emission limitation of 230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume) of H2S in the refinery fuel gas (and if applicable, combined fuel firing as noted in A.I.2.a above), the permittee shall operate and maintain an instrument for continuously monitoring and recording the concentration (dry basis) of H2S in the refinery fuel gas or combined fuel stream before being burned in this emissions unit. The monitoring shall be conducted in accordance with 40 CFR 60.105(a)(4), as follows:

a. The span value for this instrument is 425 mg/dscm of H2S.

b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H2S in the fuel gas being burned.

c. The performance evaluations for this H2S monitor under 40 CFR 60.13(c) shall use Performance Specification 7 of 40 CFR 60, Appendix B. The permittee shall conduct an annual relative accuracy test audit (RATA) for the H2S continuous emission monitoring equipment. Method 11 of 40 CFR Part 60, Appendix A, or other approved U.S. EPA methods shall be used for conducting the annual RATAs.

2. A statement of certification of the existing H2S continuous emission monitoring system (CEMS) shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7. Proof of certification shall be made available to representatives of the appropriate Ohio EPA District Office or local air agency upon request.

3. The permittee shall operate and maintain existing equipment to continuously monitor and record hydrogen sulfide from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

   The permittee shall maintain records of all data obtained by the H2S CEMS including, but not limited to, parts per million of H2S on an instantaneous (1-minute) basis, emissions of H2S in units of the applicable standard (grain/dscf and parts per million by volume). as a rolling, 3-hour average, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

4. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the CEMS designed to ensure continuous valid and representative readings of H2S. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. A logbook dedicated to the monitoring system must be kept on site and available for inspection during regular office hours.

5. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas is burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit reports within thirty (30) days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any H2S CEMS downtime while the emissions unit was on line (date, time, duration, and reason), along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of source and CEMS malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included the quarterly report.

3. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) on a quarterly basis, in writing, of all rolling, 3-hour periods during which the average concentration of H2S as measured by the H2S CEMS under 40 CFR 60.105(a)(4) exceeds 230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume). The rolling, 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages. The notification shall include a copy of the record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) by January 30, April 30, July 30 and October 30 of each year and shall address the data obtained during previous calendar quarters.

4. If there are no concentrations of H2S in the refinery fuel gas (or combined fuel stream, if applicable) greater than 230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume) during the calendar quarter, then the permittee shall submit a statement to that effect along with the emissions unit and monitor operating times. These quarterly reports shall be submitted by January 30, April 30, July 30 and October 30 of each year and shall address the data obtained during previous calendar quarters.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume) of H2S in the refinery fuel gas, or combined fuel stream if applicable

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in sections A.III.1 and A.III.3 of this permit. If required, the permittee shall determine compliance with the H2S emission limitation by using Method 11 of 40 CFR Part 60, Appendix A, or other approved USEPA methods.

1.b Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

1.c Emission Limitation:

0.014 pound of PE per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Method 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:

0.024 pound of SO2 per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Method 6 of 40 CFR Part 60, Appendix A.

1.e Emission Limitation:

0.150 pound of NOx per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Method 7 of 40 CFR Part 60, Appendix A.

1.f Emission Limitation:

0.016 pound of CO per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the process heater. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Method 10 of 40 CFR Part 60, Appendix A.

VI. Miscellaneous Requirements

None

Emissions Unit: **Process Heater (B024)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Steam Generating Unit (B026)
Activity Description: Refinery Fuel Gas or Natural Gas fired CE Power Boiler (PR 175007)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
refinery fuel gas or natural gas fired CE power boiler, 317 million Btu/hr maximum (PR 175007)	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-10(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)
	40 CFR Part 60, Subpart Db	exempt (See section A.I.2.a.)
	OAC rule 3745-31-05(A)(3) (PTI No. 03-4991)	1.03 lbs of particulate emissions (PE) per hour
		0.13 lb of nitrogen oxides (NOx) per million Btu of actual heat input
		41.21 lbs of NOx per hour
		13.72 lbs of carbon monoxide (CO) per hour
	OAC rule 3745-31-05(A)(3)(cont.)	

(PTI No. 03-4991)	0.74 lb of volatile organic compounds (VOC) per hour (See section A.I.2.b.) 8.57 lbs of sulfur dioxide (SO2) per hour See section A.I.2.e.
40 CFR Part 60, Subpart J	See section A.I.2.c.
OAC chapter 3745-14	See section A.I.2.d.
40 CFR Part 63, Subpart DDDDD	See section A.I.2.f.
40 CFR Part 63, Subpart A	See section A.I.2.g.

2. Additional Terms and Conditions

2.a 40 CFR Part 60, Subpart Db is an applicable rule for this emissions unit, since the emissions unit was constructed after June 19, 1984 and the heat input capacity is greater than 100 million Btu per hour. However, none of the fuels listed in the rule are burned in this emissions unit. Therefore, the SO2, PE, visible particulate emissions, and NOx emission limitations listed in 40 CFR 60.42b, 60.43b and 60.44b are not applicable; and performance test methods, monitoring, record keeping and reporting requirements in 40 CFR 60.45b, 60.46b, 60.47b, 60.48b, 60.49b are also not applicable.

2.b The emission limitation of 0.74 lb of VOC/hr includes fugitive VOC emissions.

2.c The permittee shall not burn any refinery fuel gas in this emissions unit that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume). This H2S standard in 40 CFR 60.104(a)(1) is also applicable if the permittee combines and combusts natural gas in any proportion with refinery fuel gas in this emissions unit, according to the fuel gas definition in 40 CFR 60.101(d).

2.d This emissions unit is subject to the nitrogen oxides (NOx) budget trading program in OAC rule 3745-14. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.1 of this permit.

2.e The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), OAC chapter 3745-14, and 40 CFR 60.104(a)(1).

2.f Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.17, for the requirements of 40 CFR Part 63, Subpart DDDDD; - National Emission Standards for

Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The requirements of 40 CFR Part 63, Subpart DDDDD will become applicable to this emissions unit upon final promulgation in the Federal Register.

2.g Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall burn only refinery fuel gas or natural gas in this emissions unit.

III. Monitoring and/or Record keeping

1. In order to demonstrate compliance with the emission limitation of 230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume) of H2S in the refinery fuel gas (and if applicable, combined fuel firing as noted in A.I.2.c above), the permittee shall operate and maintain an instrument for continuously monitoring and recording the concentration (dry basis) of H2S in the refinery fuel gas or combined fuel stream before being burned in this emissions unit. The monitoring shall be conducted in accordance with 40 CFR 60.105(a)(4), as follows:

   a. The span value for this instrument is 425 mg/dscm of H2S.

   b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H2S in the fuel gas being burned.

   c. The performance evaluations for this H2S monitor under 40 CFR 60.13(c) shall use Performance Specification 7 of 40 CFR 60, Appendix B. The permittee shall conduct an annual relative accuracy test audit (RATA) for the H2S continuous emission monitoring equipment. Method 11 of 40 CFR Part 60, Appendix A, or other approved U.S. EPA methods shall be used for conducting the annual RATAs.

2. A statement of certification of the existing H2S continuous emission monitoring system (CEMS) shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7. Proof of certification shall be made available to representatives of the appropriate Ohio EPA District Office or local air agency upon request.

3. The permittee shall operate and maintain existing equipment to continuously monitor and record hydrogen sulfide from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the H2S CEMS including, but not limited to, parts per million of H2S on an instantaneous (1-minute) basis, emissions of H2S in units of the applicable standard (grain/dscf and parts per million by volume) as a rolling, 3-hour average, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

4. In order to demonstrate compliance with the emission limitation of 0.13 pound of NOx per million Btu of actual heat input, the permittee shall operate and maintain an instrument for continuously monitoring and recording NOx from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13, as follows:

   a. The span value for this instrument is 500 parts per million of NOx.

   b. The performance evaluations for this NOx monitor under 40 CFR 60.13(c) shall use Performance Specification 7 of 40 CFR Part 60, Appendix B. The permittee shall conduct an annual relative accuracy test audit (RATA) for the NOx continuous emission monitoring equipment. Method 7 of 40 CFR Part 60, Appendix A, or other approved U.S. EPA methods shall be used for conducting the annual RATAs.

5. A statement of certification of the existing continuous NOx monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 6. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

6. The permittee shall maintain records of all data obtained by the continuous NOx monitoring system including, but not limited to, parts per million NOx on an instantaneous (one-minute) basis, emissions of NOx in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

7. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the CEMS designed to ensure continuous valid and representative readings of H2S and NOx. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. A logbook dedicated to the monitoring system must be kept on site and available for inspection during regular office hours.

8. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas is burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit reports within thirty (30) days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any H2S CEMS downtime while the emissions unit was on line (date, time, duration, and reason), along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of source and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included the quarterly report.

3. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) on a quarterly basis, in writing, of all rolling, 3-hour periods during which the average concentration of H2S as measured by the H2S CEMS under 40 CFR 60.105(a)(4) exceeds 230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume). The rolling, 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages. The notification shall include a copy of the record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during previous calendar quarters.

4. If there are no concentrations of H2S in the refinery fuel gas (or combined fuel stream, if applicable) greater than 230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume) during the calendar quarter, then the permittee shall submit a statement to that effect along with the emissions unit and monitor operating times. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during previous calendar quarters.

5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NOx values in excess of the applicable limits specified in the terms and conditions of this permit. These reports shall also contain the total NOx emissions for the calendar quarter (in tons).

6. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NOx monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total

operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

7. If there are no excess NOx emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

1.03 lbs of PE per hour

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the CE power boiler. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.c Emission Limitation:

0.13 lb of NOx per million Btu of actual heat input

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in sections A.III.4 and A.III.6 of this permit. If required, the permittee shall determine compliance with the NOx emission limitation by using Method 7 of 40 CFR Part 60, Appendix A, or other approved USEPA methods.

1.d Emission Limitation:

41.21 lbs of NOx per hour

Applicable Compliance Method:

The emission limitation was developed by multiplying the limitation of 0.13 pound of NOx per million Btu by the maximum heat input of 317 million Btu per hour. If required, the permittee shall determine compliance with the NOx emission limitation by using Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A, or other approved USEPA methods.

1.e Emission Limitation:

13.72 lbs of CO per hour

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate carbon monoxide emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the CE power boiler. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Methods 1 through 4 and Method 10, 40 CFR Part 60, Appendix A.

1.f Emission Limitation:

0.74 lb of VOC per hour

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate volatile organic compound emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the CE power boiler. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Methods 1 through 4 and Method 18, 25 or 25A of 40 CFR Part 60, Appendix A.

1.g Emission Limitation:

8.57 lbs of SO2 per hour

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate sulfur dioxide emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the CE power boiler. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Methods 1 through 4 and Method 6, 40 CFR Part 60, Appendix A.

1.h Emission Limitation:

230 mg/dscm (0.10 grain/dscf)230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume) of H2S in the refinery fuel gas, or combined fuel stream if applicable

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in sections A.III.1 and A.III.3 of this permit. If required, the permittee shall determine compliance with the H2S emission limitation by using Method 11 of 40 CFR Part 60, Appendix A, or other approved USEPA methods.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process Heater (B027)
Activity Description: Refinery Fuel Gas or Natural Gas fired Coker Furnace (PR 170002)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
refinery fuel gas or natural gas fired coker furnace, 187.2 million Btu/hr maximum (PR 170002)	OAC rule 3745-31-05(A)(3) (PTI No. 03-8161)	0.46 lb of particulate emissions (PE) per hour 0.13 lb of nitrogen oxides (NOx) per million Btu of actual heat input 22.88 lbs of NOx per hour 4.30 lbs of sulfur dioxide (SO2) per hour 7.22 lbs of carbon monoxide (CO) per hour 0.25 lb of volatile organic compounds (VOC) per hour See section A.I.2.a.
	40 CFR Part 60, Subpart J	See section A.I.2.b.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

OAC rule 3745-17-10(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
40 CFR Part 63, Subpart DDDDD	See section A.I.2.c.
40 CFR Part 63, Subpart A	See section A.I.2.d.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and 40 CFR 60.104(a)(1).

2.b The permittee shall not burn any refinery fuel gas in this emissions unit that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume). This H2S standard in 40 CFR 60.104(a)(1) is also applicable if the permittee combines and combusts natural gas in any proportion with refinery fuel gas in this emissions unit, according to the fuel gas definition in 40 CFR 60.101(d).

2.c Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.17, for the requirements of 40 CFR Part 63, Subpart DDDDD; - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The requirements of 40 CFR Part 63, Subpart DDDDD will become applicable to this emissions unit upon final promulgation in the Federal Register.

2.d Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall burn only refinery fuel gas or natural gas in this emissions unit.

III. Monitoring and/or Record keeping

1. In order to demonstrate compliance with the emission limitation of 230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume) of H2S in the refinery fuel gas (and if applicable, combined fuel firing as noted in A.I.2.a above), the permittee shall operate and maintain an instrument for continuously monitoring and recording the concentration (dry basis) of H2S in the refinery fuel gas or combined fuel stream before being

burned in this emissions unit. The monitoring shall be conducted in accordance with 40 CFR 60.105(a)(4), as follows:

a. The span value for this instrument is 425 mg/dscm of H2S.

b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H2S in the fuel gas being burned.

c. The performance evaluations for this H2S monitor under 40 CFR 60.13(c) shall use Performance Specification 7 of 40 CFR Part 60, Appendix B. The permittee shall conduct an annual relative accuracy test audit (RATA) for the H2S continuous emission monitoring equipment. Method 11 of 40 CFR Part 60, Appendix A, or other approved U.S. EPA methods shall be used for conducting the annual RATAs.

2. A statement of certification of the existing H2S continuous emission monitoring system (CEMS) shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7. Proof of certification shall be made available to representatives of the appropriate Ohio EPA District Office or local air agency upon request.

3. The permittee shall operate and maintain existing equipment to continuously monitor and record hydrogen sulfide from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

   The permittee shall maintain records of all data obtained by the H2S CEMS including, but not limited to, parts per million of H2S on an instantaneous (1-minute) basis, emissions of H2S in units of the applicable standard (grain/dscf and parts per million by volume) as a rolling, 3-hour average, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

4. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the CEMS designed to ensure continuous valid and representative readings of H2S. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. A logbook dedicated to the monitoring system must be kept on site and available for inspection during regular office hours.

5. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas is burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit reports within thirty (30) days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any H2S CEMS downtime while the emissions unit was on line (date, time, duration, and reason), along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of source and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included the quarterly report.

3. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) on a quarterly basis, in writing, of all rolling, 3-hour periods during which the average concentration of H2S as measured by the H2S CEMS under 40 CFR 60.105(a)(4) exceeds 230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume). The rolling, 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages. The notification shall include a copy of the record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during previous calendar quarters.

4. If there are no concentrations of H2S in the refinery fuel gas (or combined fuel stream, if applicable) greater than 230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume) during the calendar quarter, then the permittee shall submit a statement to that effect along with the emissions unit and monitor operating times. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during previous calendar quarters.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.46 lb of PE per hour

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the coker furnace. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.c Emission Limitation:

0.13 lb of NOx per million Btu of actual heat input

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in section A.V.2. Ongoing compliance with this emission limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

1.d Emission Limitation:

22.88 lbs of NOx per hour

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in section A.V.2. Ongoing compliance with this emission limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

1.e Emission Limitation:

4.30 lbs of SO2 per hour

Applicable Compliance Method:

The emission limitation is based on a maximum H2S content of the refinery fuel gas (or combined fuel stream, if applicable) fired in this emissions unit of 230 mg/dscm (0.10 grain/dscf). As long as the permittee maintains compliance with the H2S operational restriction in section A.I.2.a, compliance with the SO2 emission limitation will be assumed.

1.f Emission Limitation:

7.22 lbs of CO per hour

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in section A.V.2. Ongoing compliance with this emission limitation shall be demonstrated through emission testing in accordance with Ohio EPA, Office of Air Pollution Control, Division of Engineering, Engineering Guide #16.

1.g Emission Limitation:

0.25 lb of VOC per hour

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas or natural gas combustion rate, in million standard cubic feet per hour, by the appropriate VOC emission factor, in pound(s) per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum heat input to the coker furnace. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Methods 1 through 4 and Method 18, 25, or 25A of 40 CFR Part 60, Appendix A.

1.h Emission Limitation:

230 mg/dscm (0.10 grain/dscf)(the equivalent concentration is 162 parts per million by volume) of H2S in the refinery fuel gas, or combined fuel stream if applicable

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in sections A.III.1 and A.III.3 of this permit. If required, the permittee shall determine compliance with the H2S emission limitation by using Method 11 of 40 CFR Part 60, Appendix A, or other approved USEPA methods.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

   a. The emission testing shall be conducted within 1 year after permit issuance.

   b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates of 0.13 lb of NOx per million Btu of actual heat input, 22.88 lbs of NOx per hour, and 7.22 lbs of CO per hour.

   c. The following test methods shall be employed to demonstrate compliance:

      i. For the allowable mass emission rates of 0.13 lb of NOx per million Btu of actual heat input, and 22.88 lbs of NOx per hour:

         Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

      ii. For the allowable mass emission rate of 7.22 lbs of CO per hour:

         Methods 1 through 4 and 10 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

   d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

   Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

None

Emissions Unit: **Process Heater (B027)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process Heater (B028)
Activity Description: Refinery Fuel Gas or Natural Gas Fired Process Heater for Catalytic Gasoline Hydrotreating Unit

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
B028 - refinery fuel gas/natural gas fired process heater for catalytic gasoline hydrotreating unit, equipped with low nitrogen oxides burners, 18.2 million Btu/hr maximum heat input	OAC rule 3745-31-05(A)(3) (PTI No. 03-13794)	1.76 tons sulfur dioxide (SO2)/yr 0.043 lb of nitrogen oxides (NOx) per million Btu of actual heat input (see A.I.2.a) 3.44 tons NOx/yr 1.26 lbs carbon monoxide (CO)/hr, 5.52 tons CO/yr 0.08 lb volatile organic compounds (VOC)/hr, 0.35 ton VOC/yr 0.11 lb particulate emissions (PE)/hr, 0.48 tons PE/yr See section A.I.2.d.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-10(B)(1)	See A.I.2.e.

OAC rule 3745-23-06(B)	See A.I.2.c.
OAC rule 3745-21-08(B)	See A.I.2.c.
OAC rule 3745-18-06(E)	See A.I.2.f.
40 CFR 60.104(a)(1)	See A.I.2.b.
40 CFR Part 61, Subpart FF	See A.I.2.g.
OAC rule 3745-21-09(T)	leaks from petroleum refinery equipment (See A.I.2.h.)
OAC rule 3745-21-09(DD)	leaks from petroleum refinery equipment (See A.I.2.h.)
40 CFR Part 60, Subpart VV	leaks from petroleum refinery equipment (See A.I.2.h.)
40 CFR Part 60, Subpart GGG	leaks from petroleum refinery equipment (See A.I.2.h.)
40 CFR Part 61, Subpart V	leaks from petroleum refinery equipment (See A.I.2.h.)
40 CFR Part 63, Subpart CC	leaks from petroleum refinery equipment (See A.I.2.h.)
40 CFR Part 63, Subpart DDDDD	exempt
40 CFR Part 63, Subpart A	See section A.I.2.i. See section A.I.2.j.

2. Additional Terms and Conditions

2.a Best available technology (BAT) control requirements for this emissions unit has been determined to be use of low NOx burners meeting 0.043 lb NOx per million Btu of actual heat input.

2.b The permittee shall not burn any refinery fuel gas in this emissions unit that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (162 ppm). This H2S standard in 40 CFR 60.104(a)(1) is also applicable if the permittee combines and combusts natural gas

in any proportion with refinery fuel gas in this emissions unit, according to the fuel gas definition in 40 CFR 60.101(d).

2.c The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.d The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and 40 CFR 60.104(a)(1).

2.e The emission limitation specified by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.f This emissions unit is fuel burning equipment which combusts refinery fuel gas or natural gas. When firing natural gas, the emissions unit is exempt from OAC rule 3745-18-06 per OAC rule 3745-18-06(A). When firing refinery fuel gas, OAC rule 3745-18-06(E) does not establish an emission limitation because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-18-01(B)(14).

2.g The permittee shall include the process heater for the catalytic gasoline hydrotreating unit in the current site benzene waste operations program. The program shall comply with the appropriate provisions (includes operational restrictions, monitoring and record keeping, reporting, and testing) of 40 CFR Part 61, Subpart FF. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.9 of this permit.

2.h This emissions unit is subject to the appropriate provisions (including operational restrictions, monitoring and record keeping, reporting, and testing) of OAC rule 3745-21-09(T) - Leaks from petroleum refinery equipment, OAC rule 3745-21-09(DD) - Leaks from process units that produce organic chemicals, 40 CFR Part 60, Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry), 40 CFR Part 60, Subpart GGG (Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries, 40 CFR Part 63, Subpart CC (Petroleum Refinery MACT Standards), and 40 CFR Part 61, Subpart V (National Emission Standard for Equipment Leaks - Fugitive Emission Sources).

The requirements of these rules are equivalent to or less stringent than the alternative leak detection and repair (LDAR) monitoring plan submitted by the permittee, pursuant to OAC rule 3745-21-09(T)(4) and 40 CFR Part 63, Subpart CC. Terms and conditions for the alternative LDAR plan are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.13 of this permit.

2.i Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.17, for the requirements of 40 CFR Part 63, Subpart DDDDD; - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. The requirements of 40 CFR Part 63, Subpart DDDDD will become applicable to this emissions unit upon final promulgation in the Federal Register. Although Subpart DDDDD is an applicable rule to emissions unit B028, the emissions unit is exempt from the requirements of Subpart DDDDD in accordance with 40 CFR 63.7491(l).

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall burn only refinery fuel gas or natural gas in this emissions unit.

III. Monitoring and/or Record keeping

1. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. In order to demonstrate compliance with the emission limitation of 230 mg/dscm (162 ppm) of H2S in the refinery fuel gas (and if applicable, combined fuel firing as noted in A.I.2.a above), the permittee shall operate and maintain an instrument for continuously monitoring and recording the concentration (dry basis) of H2S in the refinery fuel gas or combined fuel stream before being burned in this emissions unit. The monitoring shall be conducted in accordance with 40 CFR 60.105(a)(4), as follows:

   a. The span value for this instrument is a ppm equivalent of 425 mg/dscm of H2S.

   b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H2S in the fuel gas being burned.

   c. The performance evaluations for this H2S monitor under 40 CFR 60.13(c) shall use Performance Specification 7 of 40 CFR Part 60, Appendix B. The permittee shall conduct an annual relative accuracy test audit (RATA) for the H2S continuous emission

monitoring equipment. Method 11 of 40 CFR Part 60, Appendix A, or other approved U.S. EPA methods shall be used for conducting the annual RATAs.

3. A statement of certification of the existing H2S continuous emission monitoring system (CEMS) shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7. Proof of certification shall be made available to representatives of the appropriate Ohio EPA District Office or local air agency upon request.

4. The permittee shall operate and maintain existing equipment to continuously monitor and record hydrogen sulfide from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

   The permittee shall maintain records of all data obtained by the H2S CEMS including, but not limited to, parts per million of H2S on an instantaneous (1-minute) basis, emissions of H2S in units of the applicable standard as a rolling, 3-hour average, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit reports within thirty (30) days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any H2S CEMS downtime while the emissions unit was on line (date, time, duration, and reason), along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of source and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included the quarterly report.

3. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) on a quarterly basis, in writing, of all rolling, 3-hour periods during which the average concentration of H2S as measured by the H2S CEMS under 40 CFR 60.105(a)(4) exceeded 230 mg/dscm (162 ppm). The rolling, 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages. The notification shall include a copy of the record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during previous calendar quarters.

4. If there were no concentrations of H2S in the refinery fuel gas (or combined fuel stream, if applicable) that exceeded the value specified in section A.I.2.b during the calendar quarter, then the permittee shall submit a statement to that effect along with the emissions unit and monitor operating times. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during previous calendar quarters.

5. Pursuant to the New Source Performance Standards (NSPS), the permittee is hereby advised of the requirements to report the following at the appropriate times:

   a. construction date (no later than 30 days after such date);

   b. actual start-up date (within 15 days after such date); and

   c. date of performance testing (if required, at least 30 days prior to testing).

   Reports are to be sent to:

   Ohio Environmental Protection Agency
   DAPC - Permit Management Unit
   Lazarus Government Center
   P.O. Box 1049
   Columbus, OH 43216-1049

   and

   Ohio EPA, Northwest District Office
   347 North Dunbridge Road
   Bowling Green, OH 43402

V. Testing Requirements

1. Compliance with the emissions limitations in section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:

   a. Emission Limitations:

      0.11 lb PE/hr, 0.48 tons PE/yr

      Applicable Compliance Method:

      The permittee may demonstrate compliance with the hourly limitation by multiplying the appropriate particulate emission factor of 7.6 pounds per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), by the maximum fuel flow rate of 15,000 standard cubic foot/hr. If required, the permittee shall demonstrate compliance with this emission

limitation by conducting emission testing in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 - 5.

The annual emission limitation was derived by multiplying the hourly emission limitation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

b. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

c. Emission Limitation:

1.76 tons SO2/yr

Applicable Compliance Method:

The annual emission limitation was established in accordance with the following equation:

Tons SO2/yr = (0.10 gr H2S/scf)(lb H2S/7,000 gr H2S)(64.1 lb SO2/34.1 lb H2S)(15,000 cf/hr)(8760 hrs/yr)(ton/2000 lbs)

where:

(0.10 gr H2S/scf) = 40 CFR 60.104(a)(1) emission limitation
(64.1 lb SO2/34.1 lb H2S) = conversion of hydrogen sulfide to sulfur dioxide assuming all H2S is converted to SO2
(15,000 cf/hr) = maximum fuel flow rate
(8,760 hrs/yr) = maximum operating schedule

All other values are conversion factors.

Compliance with the annual emission limitation will be shown as long as the permittee maintains compliance with the H2S emission limitation in 40 CFR 60.104(a)(1).

d. Emission Limitations:

0.043 lb NOx per million Btu of actual heat input, 3.44 tons NOx/yr

Applicable Compliance Method:

The emission limitation is based on the burner manufacturer's emissions data for low NOx burners to be installed on this emissions unit. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 - 4 and 7.

The annual emission limitation was derived by multiplying the 0.043 lb of NOx per million Btu emission limitation times the maximum heat input capacity of 18.2 million Btu/hr for the process heater, then multiplying by 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the 0.043 lb of NOx per million Btu emission limitation is maintained.

e. Emission Limitations:

1.26 lbs CO/hr, 5.52 tons CO/yr

Applicable Compliance Method:

The permittee may demonstrate compliance with the hourly limitation by multiplying the appropriate CO emission factor of 84 pounds per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), by the maximum fuel flow rate of 15,000 standard cubic foot/hr. If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4, and 10.

The annual emission limitation was derived by multiplying the hourly emission limitation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

f. Emission Limitations:

0.08 lb VOC/hr, 0.35 ton VOC/yr

Applicable Compliance Method:

The permittee may demonstrate compliance with this limitation by multiplying the appropriate VOC emission factor of 5.5 pounds per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), by the maximum fuel flow rate of 15,000 standard cubic foot/hr. If required, the permittee shall demonstrate compliance with the hourly emission

limitation by conducting emission testing in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4, and 18, 25, or 25A, as appropriate.

The annual emission limitation was derived by multiplying the hourly emission limitation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

g. Emission Limitation:

The permittee shall not burn any refinery fuel gas in this emissions unit that contains H2S in excess of 230 mg/dscm (162 ppm).

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated in accordance with the continuous emission monitoring requirements specified in section A.III.2. through A.III.4.

VI. Miscellaneous Requirements

1. Within one hundred eighty (180) days of the effective date of this permit, the permittee shall update the existing quality assurance/quality control plan for the refinery fuel gas H2S continuous emission monitor designed to ensure continuous valid and representative readings of H2S. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. A logbook dedicated to the monitoring system must be kept on site and available for inspection during regular office hours.

Emissions Unit: **Process Heater (B028)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Roadways (F001)
Activity Description: Paved and Unpaved Roadways

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
paved and unpaved roadways	OAC rule 3745-17-07(B)	none See section A.I.2.a.
	OAC rule 3745-17-08(B)	none See section A.I.2.b.

2. Additional Terms and Conditions

2.a This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

2.b This facility is not located within the areas identified in "Appendix A" of OAC rule 3745-17-08 (it is located outside of the Lima, Ohio city limits). Therefore, the requirements of OAC rule 3745-17-08(B) do not apply to this emissions unit.

II. Operational Restrictions

None

Emissions Unit: **Roadways (F001)**

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit: **Roadways (F001)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Loading Rack (J001)
Activity Description: ***Propane and*** Propylene Truck Loading/Unloading Facilities

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
propane and propylene truck loading/unloading facilities	OAC rule 3745-21-07(E)	exempt See section A.I.2.a.

2. Additional Terms and Conditions

2.a This emissions unit is exempt from the requirements of OAC rule 3745-21-07(E) pursuant to the requirements of OAC rule 3745-21-07(A)(1). This facility is not located in one of the Priority 1 counties identified in OAC rule 3745-21-06(A).

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit: **Loading Rack (J001)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Loading Rack (J002)
Activity Description: ***Propane and*** Propylene Railcar Loading/Unloading Facilities

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
propane and propylene railcar loading/unloading facilities	OAC rule 3745-21-07(E)	exempt See section A.I.2.a.

2. Additional Terms and Conditions

2.a This emissions unit is exempt from the requirements of OAC rule 3745-21-07(E) pursuant to the requirements of OAC rule 3745-21-07(A)(1). This facility is not located in one of the Priority 1 counties identified in OAC rule 3745-21-06(A).

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit: **Loading Rack (J002)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process (P002)
Activity Description: SRU MEA Unit: Gas Amine Contactor (PR 164171), LPG Amine Contactor (PR 164170), Amine Stripper (PR 164172)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
sulfur recovery unit, MEA unit - gas amine contactor, LPG amine contactor, amine stripper	OAC rule 3745-18-08(C)(3)	100 lbs of sulfur dioxide (SO2) per 1,000 lbs of sulfur processed (See section A.I.2.a.)
	40 CFR Part 63, Subpart CC	See section A.I.2.b.
	40 CFR Part 63, Subpart UUU	See section A.I.2.c.
	40 CFR Part 63, Subpart A	See section A.I.2.e.

2. Additional Terms and Conditions

2.a The emission limitation of 100 lbs of SO2 per 1,000 lbs of sulfur processed is for emissions units P002, P011, and P015, combined. For a specific period of time, the amount of sulfur processed is equal to the amount of sulfur entering the Claus unit plus the amount of any sulfur bypassed to the flare(s) from the amine unit and/or the sour water stripper. The bypassing of any significant hydrogen sulfide gases from the amine unit and/or the sour water stripper to the flare(s) may be a violation of the allowable SO_2 emission rate depending on the extent of bypassing.

2.b Pursuant to the Group 1 miscellaneous process vent requirements in 40 CFR 63.641, the permittee shall reduce emissions of organic HAP's using the LIU and acid gas flares (emissions units P007 and P036) that meet the requirements of 40 CFR 63.11(b) of

subpart A. Terms and conditions for these flares are contained in the terms and conditions for emissions units P007 and P036.

2.c This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart UUU. The permittee shall comply with the emission limitations and work practice standards in 40 CFR Part 63, Subpart UUU by no later than April 11, 2005 unless an extension of compliance is granted under 40 CFR Part 63.1563(c). Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.15 of this permit.

2.d The existing sulfur recovery unit (Claus 1) consists of three emissions units: P002, P011 and P015. Upon completion of construction of the new Claus 2 sulfur recovery unit as part of the Tier II fuels project, the Claus 1 and Claus 2 units will be administratively combined into one emissions unit, P040, as shown in PTI No. 03-13794. At that time, the terms and conditions for emissions units P002, P011 and P015 will no longer be effective, and all terms and conditions for the two Claus units will be administered under emissions unit P040.

2.e Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain daily records of the following information for this emissions unit:

   a. the total amount of sulfur processed;

   b. the total SO_2 emissions, including SO_2 emissions resulting from the bypassing of the amine unit and/or sour water stripper to the flare(s), in pounds; and

   c. the average SO_2 emission rate, in pound of SO_2 per 1,000 pounds of sulfur processed.

For a specific period of time, the amount of sulfur processed is equal to the amount of sulfur entering the Claus units plus the amount of any sulfur bypassed to the flare(s) from the amine units and/or the sour water stripper. Sulfur bypassed to the flare from the amine units and/or sour water stripper must be accounted for and reported in accordance with the provisions of section A.IV. The Director does not waive his authority to pursue violations of the applicable emission limits during periods of start-up, shutdown or malfunction.

2. The permittee shall operate and maintain an instrument for continuously monitoring and recording the SO2 emission rate from the Claus unit serving emissions units P002, P011 and P015. The monitoring shall be conducted in accordance with 40 CFR 60.13, as follows:

   a. The span value for this instrument is 125 percent of the applicable SO2 emission limitation.

   b. The performance evaluations for this SO2 monitor under 40 CFR 60.13 shall use Performance Specification 2 of 40 CFR Part 60, Appendix B.

      The permittee shall conduct an annual relative accuracy test audit (RATA) for the SO2 continuous emission monitoring equipment. Method 6 of 40 CFR Part 60, Appendix A, or other approved U.S. EPA methods shall be used for conducting the annual RATAs.

3. A statement of certification of the existing SO2 continuous emission monitoring system (CEMS) shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. Proof of certification shall be made available to representatives of the appropriate Ohio EPA District Office or local air agency upon request.

4. The permittee shall maintain records of all data obtained by the continuous SO2 CEMS including, but not limited to, lbs/hr of SO2, parts per million SO2 on an instantaneous (1-minute) basis, emissions of SO2 in units of the applicable standard (lb/1,000 lbs of sulfur processed), the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

5. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the SO2 CEMS designed to ensure continuous valid and representative readings of SO2. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous SO2 monitoring system must be kept on site and available for inspection during regular office hours.

IV. Reporting Requirements

1. The permittee shall submit quarterly excess emission and data assessment reports to the appropriate Ohio EPA District Office or local air agency by January 30, April 30, July 30 and October 30 of each year detailing the data obtained from the CEMS of the SRU during the previous quarter. The report shall include the percent availability of the SRU, the dates, duration, amounts (tons), and points of emission of excess sulfur dioxide emissions that are caused by malfunctions or shutdowns of the amine unit, sour water stripper, or the SRU, and an analysis of the cause of and corrective action taken for each malfunction (including any bypassing of the amine-claus SRU to the refinery flare system) or shutdown. The report shall also include all

instances of daily SO2 values in excess of the limitation specified in OAC rule 3745-18-08(C)(3).

2. The permittee shall submit reports within thirty (30) days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any SO2 CEMS downtime while the emissions unit was on line (date, time, duration, and reason), along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of source and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included the quarterly report.

3. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) on a quarterly basis, in writing, of all daily periods during which the average SO2 emissions exceeded 100 lbs of SO2 per 1,000 lbs of sulfur processed. The notification shall include a copy of the record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) by January 30, April 30, July 30 and October 30 of each year and shall address the data obtained during the previous calendar quarters. These reports shall also contain the total SO2 emissions for the calendar quarter (in tons).

4. If there are no excess SO2 emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30 and October 30 of each year and shall address the data obtained during the previous calendar quarter.

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

100 lbs of SO2 per 1,000 lbs of sulfur processed for emissions units P002, P011, and P015, combined

Applicable Compliance Method:

Compliance shall be based upon the results of the emission monitoring required in sections A.III.1 and A.III.2. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with Method 6 of 40 CFR Part 60, Appendix A.

Emissions Unit: **Process (P002)**

VI. Miscellaneous Requirements

None

Emissions Unit: **Process (P002)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process (P005)
Activity Description: Two coker drums (PR164237/164238) and distillation column (PR164903)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
two coker drums (PR 164237/164238) and distillation column (PR 164903) with coker drum blowdown absorber and flare	OAC rule 3745-18-06(E)(2)	1,143 lbs of sulfur dioxide (SO2)/hr (see A.I.2.a)
	OAC rule 3745-17-11(B)(1)	none (See A.I.2.c)
	OAC rule 3745-17-07(A)	none (See A.I.2.d)
	OAC rule 3745-21-07(G)	exempt (See A.I.2.e)

2. Additional Terms and Conditions

2.a The allowable SO2 emission limitation is based on the equation in OAC rule 3745-18-06(E)(2) and a maximum process weight rate of 228.8 tons per hour.

2.b All VOC emissions from the distillation column and coker drum blowdown absorber shall be vented to the FCC flare, emissions unit P006. Monitoring, record keeping and reporting requirements for the FCC flare are listed in the terms and conditions for emissions unit P006.

2.c The uncontrolled mass rate of particulate emissions (PE)* from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01(B)(14).

* The burning of refinery fuel gas in the flare is the only source of PE from this emissions unit.

2.d This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

2.e This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G) pursuant to the requirements of OAC rule 3745-21-07(A)(1). This facility is not located in one of the Priority 1 counties identified in OAC rule 3745-21-06(A).

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

1,143 lbs of SO2/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emission limitation based on the results of the most recent emission test. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A.

VI. Miscellaneous Requirements

None

Emissions Unit: **Process (P005)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Refinery Flare (P006)
Activity Description: FCC/Coker Flare (PR 196128), treated as control equipment

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
FCC/coker flare, steam-assisted (PR 196128)	OAC rule 3745-31-05(A)(3) (PTI 03-16277)	10.00 tons of nitrogen oxides (NOx)/year during periods of process unit start-up and shutdown
		See section A.I.2.a.
	40 CFR Part 63, Subpart CC (Refinery MACT)	
		See section A.I.2.b.
	40 CFR Part 60.18	
		See section A.I.2.c.
	OAC rule 3745-21-07(J)(3)	
		See section A.I.2.d.
	40 CFR Part 63, Subpart A	

2. Additional Terms and Conditions

2.a In accordance with 40 CFR Part 63, Subpart CC, the permittee shall employ a flare to control emissions of organic hazardous air pollutants resulting from malfunctions and pressure relief episodes. The requirements of 40 CFR Part 63, Subpart CC for the flare are contained in Part II - Specific Facility Terms and Conditions, section A.12.

2.b This emissions unit shall be designed for and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

2.c The requirements specified in OAC rule 3745-21-07(J)(3) are less stringent than the requirements specified in 40 CFR Part 60.18**.**

2.d Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The flare shall be operated at all times when emissions are being vented to it.

2. The flare shall be operated with a pilot flame present at all times.

3. Only gases with a net heating value of 11.2 MJ/scm (300 Btu/scf) or greater shall be burned in this emissions unit. Net heating value shall be calculated as specified in 40 CFR Part 60.18(f)(3).

   The flare shall be operated with an exit velocity less than 18.3 m/sec (60 ft/sec) except as specified in sections A.II.4 and A.II.5.

4. If the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1000 Btu/scf), the permittee may operate the flare at an exit velocity equal to or greater than 18.3 m/sec (60 ft/sec), but less than 122 m/sec (400 ft/sec).

5. Steam-assisted flares may be operated with an exit velocity less than the maximum permitted velocity, but not greater than 122 m/sec (400 ft/sec). The maximum permitted velocity shall be determined in accordance with 40 CFR Part 60.18(f)(5).

III. Monitoring and/or Record keeping

1. The permittee shall collect and record the following information during periods of start-up and shut-down:

   a. the flare flow rate, in scf per hour;

   b. the high heating value, in Btu/scf, as determined from the flare gas molecular weight and source of the gas;

   c. an indication of which process is undergoing start-up/shut-down mode; and

   d. the number of hours the process operated in start-up/shut-down mode.

   e. the calculated NOx emissions using the following equation:

      E = (FR) x (HV) x (T) x (EF)/1,000,000

where:

E = NOx emissions in tons for each individual start-up and shut-down event;
FR = flare flow rate in scf per hour;
HV = high heating value, in Btu/scf;
T = time duration for each start-up/shut down event, in hours; and
EF = NOx emission factor of 0.068 lb of NOx/mmBtu (AP-42 Section 13.5, Industrial Flares [9/91]).

f. The annual NOx emission rate calculated as follows:

$E_T = E_1 + E_2 + E_3 + ... + E_n$

where:

E_T =Annual NOx emissions, in tons, as summed for the calendar year from January to December; and
E_n = NOx emissions, in tons, for each individual start-up/shut-down event during the calendar year.

2. The permittee shall properly operate and maintain a device to continuously monitor the pilot flame when the emissions unit is in operation. The monitoring device and any recorder shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall record the following information each day:

a. all periods during which there was no pilot flame; and

b. the downtime for the flare and monitoring equipment.

3. The permittee shall continually monitor either visually and/or by camera, whether or not there are visible emissions from the flare. Whenever the permittee observes visible emissions from the flare, the permittee shall monitor the visible emissions for a minimum period of 30 minutes in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22 and record the results in an operations log. Visible emissions shall be read at a point in the plume immediately after the steam has dissipated.

IV. Reporting Requirements

1. The permittee shall notify the Ohio EPA, Northwest District Office as soon as possible of any periods of start-up or shut-down.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods during which the pilot flame was not functioning properly. The reports shall include the date, time, and duration of each such period.

3. The permittee shall submit quarterly deviation reports that include visible emission readings conducted pursuant to the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22 as a result of the presence of visible emissions from the flare and that exceed a total time of five minutes during any consecutive two hour period. These quarterly deviation reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. The permittee shall submit annual written reports of any deviation (excursion) from the 10.00 tons per year NOx emission limitation. If no deviations occurred during a calendar year, the permittee shall submit an annual report which states that no deviations occurred. The report shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

10.00 tons of nitrogen oxides (NOx)/year during periods of process unit start-up and shutdown

Applicable Compliance Method:

Compliance with the annual NOx emission limitation shall be demonstrated through the record keeping requirements specified in section A.III.1.

1.b Emission Limitation:

no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 22.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Refinery Flare (P007)
Activity Description: LIU Flare (PR 196510), treated as control equipment

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
LIU flare, steam-assisted (PR 196510)	OAC rule 3745-31-05(A)(3) (PTI 03-16277)	10.00 tons of nitrogen oxides (NOx)/year during periods of process unit start-up and shutdown
		See section A.I.2.a.
	40 CFR Part 63, Subpart CC (Refinery MACT)	See section A.I.2.b.
	40 CFR Part 60.18	See section A.I.2.c.
	OAC rule 3745-21-07(J)(3)	See section A.I.2.d.
	40 CFR 63, Subpart A	

2. Additional Terms and Conditions

2.a In accordance with 40 CFR Part 63, Subpart CC, the permittee shall employ a flare to control emissions of organic hazardous air pollutants resulting from malfunctions and pressure relief episodes. The requirements of 40 CFR Part 63, Subpart CC for the flare are contained in Part II - Specific Facility Terms and Conditions, section A.12.

2.b This emissions unit shall be designed for and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

2.c The requirements specified in OAC rule 3745-21-07(J)(3) are less stringent than the requirements specified in 40 CFR Part 60.18.

2.d Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The flare shall be operated at all times when emissions are being vented to it.

2. The flare shall be operated with a pilot flame present at all times.

3. Only gases with a net heating value of 11.2 MJ/scm (300 Btu/scf) or greater shall be burned in this emissions unit. Net heating value shall be calculated as specified in 40 CFR Part 60.18(f)(3).

   The flare shall be operated with an exit velocity less than 18.3 m/sec (60 ft/sec) except as specified in sections A.II.4 and A.II.5.

4. If the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1000 Btu/scf), the permittee may operate the flare at an exit velocity equal to or greater than 18.3 m/sec (60 ft/sec), but less than 122 m/sec (400 ft/sec).

5. Steam-assisted flares may be operated with an exit velocity less than the maximum permitted velocity, but not greater than 122 m/sec (400 ft/sec). The maximum permitted velocity shall be determined in accordance with 40 CFR Part 60.18(f)(5).

III. Monitoring and/or Record keeping

1. The permittee shall collect and record the following information during periods of start-up and shut-down:

   a. the flare flow rate, in scf per hour;

   b. the high heating value, in Btu/scf, as determined from the flare gas molecular weight and source of the gas;

   c. an indication of which process is undergoing start-up/shut-down mode; and

   d. the number of hours the process operated in start-up/shut-down mode.

   e. the calculated NOx emissions using the following equation:

      E = (FR) x (HV) x (T) x (EF)/1,000,000

      where:

E = NOx emissions in tons for each individual start-up and shut-down event;
FR = flare flow rate in scf per hour;
HV = high heating value, in Btu/scf;
T = time duration for each start-up/shut down event, in hours; and
EF = NOx emission factor of 0.068 lb of NOx/mmBtu (AP-42 Section 13.5, Industrial Flares [9/91]).

f. The annual NOx emission rate calculated as follows:

$E_T = E_1 + E_2 + E_3 + ... + E_n$

where:

E_T =Annual NOx emissions, in tons, as summed for the calendar year from January to December; and
E_n = NOx emissions, in tons, for each individual start-up/shut-down event during the calendar year.

2. The permittee shall properly operate and maintain a device to continuously monitor the pilot flame when the emissions unit is in operation. The monitoring device and any recorder shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall record the following information each day:

a. all periods during which there was no pilot flame; and

b. the downtime for the flare and monitoring equipment.

3. The permittee shall continually monitor either visually and/or by camera, whether or not there are visible emissions from the flare. Whenever the permittee observes visible emissions from the flare, the permittee shall monitor the visible emissions for a minimum period of 30 minutes in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22 and record the results in an operations log. Visible emissions shall be read at a point in the plume immediately after the steam has dissipated.

IV. Reporting Requirements

1. The permittee shall notify the Ohio EPA, Northwest District Office as soon as possible of any periods of start-up or shut-down.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods during which the pilot flame was not functioning properly. The reports shall include the date, time, and duration of each such period.

3. The permittee shall submit quarterly deviation reports that include visible emission readings conducted pursuant to the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22 as a result of the presence of visible emissions from the flare and that exceed a total time of five minutes during any consecutive two hour period. These quarterly deviation reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. The permittee shall submit annual written reports of any deviation (excursion) from the 10.00 tons per year NOx emission limitation. If no deviations occurred during a calendar year, the permittee shall submit an annual report which states that no deviations occurred. The report shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

10.00 tons of nitrogen oxides (NOx)/year during periods of process unit start-up and shutdown

Applicable Compliance Method:

Compliance with the annual NOx emission limitation shall be demonstrated through the record keeping requirements specified in section A.III.1.

1.b Emission Limitation:

no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 22.

VI. Miscellaneous Requirements

None

Emissions Unit: **Refinery Flare (P007)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process (P010)
Activity Description: FCC/CO Boiler (PR 175079) with ESP (PR 195995)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
fluid catalytic cracker (FCC)/carbon monoxide (CO) boiler with an electrostatic precipitator	OAC rule 3745-17-11(B)(1)	91.2 lbs of particulate emissions (PE)/hr
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-18-08(C)(5)	0.92 lb of sulfur dioxide (SO2)/1,000 lbs of fresh feed
	40 CFR Part 63, Subpart UUU	See section A.I.2.a.
	40 CFR Part 63, Subpart A	See section A.I.2.b.

2. Additional Terms and Conditions

2.a This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart UUU. The permittee shall comply with the emission limitations and work practice standards in 40 CFR Part 63, Subpart UUU by no later than April 11, 2005 unless an extension of compliance is granted under 40 CFR Part 63.1563(c). Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.15 of this permit.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall operate the electrostatic precipitator whenever the fluid catalytic cracker unit is in operation, except during periods of startup and shutdown that are exempted pursuant to OAC rule 3745-17-07(A)(3)(a)(i) and 3745-17- 07(A)(3)(b)(i), or during malfunctions that are exempted pursuant to OAC rule 3745-17-07(A)(3)(c).

2. The permittee shall burn only refinery fuel gas or natural gas in the CO boiler.

III. Monitoring and/or Record keeping

1. The permittee shall operate and maintain an instrument to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

2. A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

3. The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (1-minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

5. The permittee shall operate and maintain an instrument to continuously monitor and record SO2 from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

6. A statement of certification of the existing continuous SO2 monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

7. The permittee shall maintain records of all data obtained by the continuous SO2 monitoring system including, but not limited to, parts per million SO2 on an instantaneous (1-minute) basis, emissions of SO2 in units of the applicable standard in the appropriate averaging period (lbs per 1,000 lbs of fresh feed), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

8. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous SO2 monitoring system designed to ensure continuous valid and representative readings of SO2. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous SO2 monitoring system must be kept on site and available for inspection during regular office hours.

9. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas in the CO boiler, the permittee shall maintain a record of the type and quantity of fuel burned.

IV. Reporting Requirements

1. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s). These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year.

2. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year

3. If there are no excess opacity emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of SO2 values in excess of the applicable limit of 0.92 lbs per 1,000 lbs of fresh feed, as specified in OAC Chapter 3745-18.

5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous SO2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

6. If there are no excess SO2 emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas is burned in the CO boiler. Each report shall be submitted within 30 days after the deviation occurs.

8. The permittee shall submit deviation (excursion) reports that identify all periods of time during startup and shutdown of the emissions unit when the ESP was not in operation and the temperature of the boiler exhaust gases exceeded the temperature levels specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b)(i).

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

91.2 lbs of PE/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the emission limitation above based upon the results of the stack tests required in section A.V.2.

1.b Emission Limitation:

20% opacity as a 6-minute average, except as provided by the rule

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

1.c Emission Limitation:

0.92 lb of SO2/1,000 lbs of fresh feed

Applicable Compliance Method:

The permittee shall demonstrate compliance with the emission limitation above based upon the results of the stack tests required in section A.V.2.

2. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:

   a. Particulate emissions: emission testing shall be conducted within 6 months prior to permit expiration to demonstrate compliance with the particulate emission limitation of 91.2 lbs of PE/hr.

   b. SO2 emissions: emission testing shall be conducted no later than May 31, 2007 and a second test conducted no later than May 31, 2009 (tests to be 24 months apart) to demonstrate compliance with the SO2 emission limitation of 0.92 lb of SO2/1,000 lbs of fresh feed.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rates:

i. Methods 1 through 5 of 40 CFR Part 60, Appendix A shall be employed to demonstrate compliance with the PE limitation.

ii. Method 6 of 40 CFR Part 60, Appendix A shall be employed to demonstrate compliance with the SO2 emission limitation.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process (P011)
Activity Description: SRU Foul Condensate Stripper (PR 164263)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
sulfur recovery unit, foul condensate stripper	OAC rule 3745-18-08(C)(3)	100 lbs of sulfur dioxide (SO2) per 1,000 lbs of sulfur processed (See section A.I.2.a.)
	40 CFR Part 63, Subpart UUU	See section A.I.2.b.
	40 CFR Part 63, Subpart A	See section A.I.2.d.

2. Additional Terms and Conditions

2.a The emission limitation of 100 lbs of SO2 per 1,000 lbs of sulfur processed is for emissions units P002, P011, and P015, combined. For a specific period of time, the amount of sulfur processed is equal to the amount of sulfur entering the Claus unit plus the amount of any sulfur bypassed to the flare(s) from the amine unit and/or the sour water stripper. The bypassing of any significant hydrogen sulfide gases from the amine unit and/or the sour water stripper to the flare(s) may be a violation of the allowable SO_2 emission rate depending on the extent of bypassing.

2.b This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart UUU. The permittee shall comply with the emission limitations and work practice standards in 40 CFR Part 63, Subpart UUU by no later than April 11, 2005 unless an extension of compliance is granted under 40 CFR Part 63.1563(c). Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.15 of this permit.

2.c The existing sulfur recovery unit (Claus 1) consists of three emissions units: P002, P011 and P015. Upon completion of construction of the new Claus 2 sulfur recovery unit as part of the Tier II fuels project, the Claus 1 and Claus 2 units will be administratively combined into one emissions unit, P040, as shown in PTI No. 03-13794. At that time, the terms and conditions for emissions units P002, P011 and P015 will no longer be effective, and all terms and conditions for the two Claus units will be administered under emissions unit P040.

2.d Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain daily records of the following information for this emissions unit:

   a. the total amount of sulfur processed;

   b. the total SO_2 emissions, including SO_2 emissions resulting from the bypassing of the amine unit and/or sour water stripper to the flare(s), in pounds; and

   c. the average SO_2 emission rate, in pound of SO_2 per 1,000 pounds of sulfur processed.

   For a specific period of time, the amount of sulfur processed is equal to the amount of sulfur entering the Claus units plus the amount of any sulfur bypassed to the flare(s) from the amine units and/or the sour water stripper. Sulfur bypassed to the flare from the amine units and/or sour water stripper must be accounted for and reported in accordance with the provisions of section A.IV. The Director does not waive his authority to pursue violations of the applicable emission limits during periods of start-up, shutdown or malfunction.

2. The permittee shall operate and maintain an instrument for continuously monitoring and recording the SO2 emission rate from the Claus unit serving emissions units P002, P011 and P015. The monitoring shall be conducted in accordance with 40 CFR 60.13, as follows:

   a. The span value for this instrument is 125 percent of the applicable SO2 emission limitation.

   b. The performance evaluations for this SO2 monitor under 40 CFR 60.13 shall use Performance Specification 2 of 40 CFR Part 60, Appendix B.

The permittee shall conduct an annual relative accuracy test audit (RATA) for the SO2 continuous emission monitoring equipment. Method 6 of 40 CFR Part 60, Appendix A, or other approved U.S. EPA methods shall be used for conducting the annual RATAs.

3. A statement of certification of the existing SO2 continuous emission monitoring system (CEMS) shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. Proof of certification shall be made available to representatives of the appropriate Ohio EPA District Office or local air agency upon request.

4. The permittee shall maintain records of all data obtained by the continuous SO2 CEMS including, but not limited to, lbs/hr of SO2, parts per million SO2 on an instantaneous (1-minute) basis, emissions of SO2 in units of the applicable standard (lb/1,000 lbs of sulfur processed), the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

5. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the SO2 CEMS designed to ensure continuous valid and representative readings of SO2. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous SO2 monitoring system must be kept on site and available for inspection during regular office hours.

IV. Reporting Requirements

1. The permittee shall submit quarterly excess emission and data assessment reports to the appropriate Ohio EPA District Office or local air agency by January 30, April 30, July 30 and October 30 of each year detailing the data obtained from the CEMS of the SRU during the previous quarter. The report shall include the percent availability of the SRU, the dates, duration, amounts (tons), and points of emission of excess sulfur dioxide emissions that are caused by malfunctions or shutdowns of the amine unit, sour water stripper, or the SRU, and an analysis of the cause of and corrective action taken for each malfunction (including any bypassing of the amine-claus SRU to the refinery flare system) or shutdown. The report shall also include all instances of daily SO2 values in excess of the limitation specified in OAC rule 3745-18-08(C)(3).

2. The permittee shall submit reports within thirty (30) days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any SO2 CEMS downtime while the emissions unit was on line (date, time, duration, and reason), along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of source and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included the quarterly report.

3. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) on a quarterly basis, in writing, of all daily periods during which the average SO2 emissions exceeded 100 lbs of SO2 per 1,000 lbs of sulfur processed. The notification shall include a copy of the record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) by January 30, April 30, July 30 and October 30 of each year and shall address the data obtained during the previous calendar quarters. These reports shall also contain the total SO2 emissions for the calendar quarter (in tons).

4. If there are no excess SO2 emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30 and October 30 of each year and shall address the data obtained during the previous calendar quarter.

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

100 lbs of SO2 per 1,000 lbs of sulfur processed for emissions units P002, P011, and P015, combined

Applicable Compliance Method:

Compliance shall be based upon the results of the emission monitoring required in sections A.III.1 and A.III.2. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with Method 6 of 40 CFR Part 60, Appendix A.

VI. Miscellaneous Requirements

None

Emissions Unit: **Process (P011)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process (P012)
Activity Description: API oil/water separator with covers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
API oil/water separator with covers	OAC rule 3745-21-09(M)(2)	See section A.I.2.a.

2. Additional Terms and Conditions

2.a Except for any wastewater separator which is used solely for once-through, noncontact cooling water or for intermittent tank farm drainage resulting from accumulated precipitation, the permittee shall control the emissions of VOC from any wastewater separator no later than the date specified in paragraph (C)(13) of rule 3745-21-04 of the Administrative Code by equipping all forebay sections and other separator sections with covers and seals which minimize the amount of oily water exposed to the ambient air. In addition, all covers and forebay and separator sections shall be equipped with lids and seals which are kept in a closed position at all times except when in actual use.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit: **Process (P012)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process (P014)
Activity Description: Vacuum II Distillation Tower with Firebox (Crude II) (PR 164058)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
vacuum II distillation tower with firebox (crude II)(PR 164058)	OAC rule 3745-18-06(E)(2)	1,620 lbs of sulfur dioxide (SO2)/hr (See section A.I.2.a.)
	OAC rule 3745-21-09(M)(1)	See section A.I.2.b.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.643	See section A.I.2.c.
	40 CFR 63.644	See sections A.III.1 through A.III.4.
	40 CFR 63.654	See section A.III.6.
	40 CFR Part 63, Subpart A	See section A.I.2.d.

2. Additional Terms and Conditions

2.a The allowable SO2 emission limitation is based on the equation in OAC rule 3745-18-06(E)(2) and a maximum process weight rate of 385.25 tons per hour.

2.b The permittee shall control the emissions of volatile organic compounds from any vacuum producing system by piping the vapors to an appropriate firebox or incinerator, or by compressing the vapors and adding them to the refinery fuel gas system.

2.c The permittee has identified the refinery fuel gas fired crude II heater (emissions unit B004) as the primary control device, and the LIU flare (emissions unit P007) as the secondary control device for this emissions unit. Therefore, pursuant to the Group 1 miscellaneous process vent requirements in 40 CFR 63.641, the permittee shall comply with the requirements of either 40 CFR 63.643(a)(1) or 63.643(a)(2), as follows:

i. Reduce emissions of organic HAP's using a flare (emissions unit P007) that meets the requirements of 40 CFR 63.11(b) of subpart A. [40 CFR 63.643(a)(1)]

Terms and conditions for this flare are contained in the terms and conditions for emissions unit P007.

ii. Reduce emissions of organic HAP's, using a control device, by 98 weight-percent or to a concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent. Compliance can be determined by measuring either organic HAP's or TOC's using the procedures in 40 CFR 63.645. [40 CFR 63.643(a)(2)]

iii. If a boiler or process heater is used to comply with the percentage of reduction requirement or concentration limit specified in 40 CFR 63.643(a)(2), then the vent stream shall be introduced into the flame zone of such a device, or in a location such that the required percent reduction or concentration is achieved. Testing and monitoring is required only as specified in 40 CFR 63.644(a) and 40 CFR 63.645. [40 CFR 63.643(b)]

2.d Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The design heat input capacity of the process heater (emissions unit B004) used as the primary control device is greater than 44 megawatts. Therefore, as long as all vent streams routed into emissions unit B004 from the vacuum II distillation tower are introduced into the flame zone of emissions unit B004, no additional monitoring requirements are applicable for this process heater. [40 CFR 63.644(a)(3)]

2. Monitoring requirements for 40 CFR 63.644(a)(2) for the flare used as secondary control are listed in section A.III.1 for emissions unit P007.

3. The permittee shall establish a range that ensures compliance with the emission standard for the flare monitoring parameter listed in 40 CFR 63.644(a)(2). In order to establish the range, the information required in 40 CFR 63.654(f)(3) shall be submitted in the Notification of Compliance Status report. [40 CFR 63.644(d)]

4. Each permittee of a control device subject to the monitoring provisions of 40 CFR 63.644 (i.e., the LIU flare, emissions unit P007) shall operate the control device in a manner consistent with the minimum and/or maximum operating parameter value or procedure required to be monitored under 40 CFR 63.644(a)(2). Operation of the control device in a manner that constitutes a period of excess emissions, as defined in 40 CFR 63.654(g)(6), or failure to perform procedures required by this section shall constitute a violation of the applicable emission standard of this subpart. [40 CFR 63.644(e)]

5. Record keeping requirements for the flare used as secondary control are listed in sections A.III.2 and A.III.3 for emissions unit P007.

6. All other information required to be reported under paragraphs (a) through (h) of 40 CFR 63.654 shall be retained for 5 years. [40 CFR 63.654(i)(4)]

IV. Reporting Requirements

1. The permittee shall submit periodic reports no later than 60 days after the end of each 6-month period when any of the compliance exceptions specified in paragraphs (g)(1) through (g)(6) of 40 CFR 63.654 occur. The first 6-month period shall begin on the date the Notification of Compliance Status report is required to be submitted. A periodic report is not required if none of the compliance exceptions specified in paragraphs (g)(1) through (g)(6) of 40 CFR 63.654 occurred during the 6-month period unless emissions averaging is utilized. Quarterly reports must be submitted for emission points included in emissions averages, as provided in 40 CFR 63.654(g)(8). The permittee may submit reports required by other regulations in place of or as part of the periodic report required by this paragraph if the reports contain the information required by 40 CFR 63.654(g)(1) through (g)(8).

2. For miscellaneous process vents for which continuous parameter monitors are required by 40 CFR 63.644, periods of excess emissions shall be identified in the periodic reports and shall be used to determine compliance with the emission standards. Periods of excess emissions means any of the following conditions:

   a. An operating day when all pilot flames of a flare are absent.

   b. An operating day when monitoring data required to be recorded in paragraphs (i)(3)(i) and (ii) of 40 CFR 63.654 are available for less than 75 percent of the operating hours.

c. For data compression systems approved under (h)(5)(iii) of 40 CFR 63.654, an operating day when the monitor operated for less than 75 percent of the operating hours or a day when less than 18 monitoring values were recorded.

3. For miscellaneous process vents, excess emissions shall be reported for the operating parameters specified in table 10 of 40 CFR 63.654 unless other site-specific parameter(s) have been approved by the operating permit authority.

4. Period of startup and shutdown that meet the definition of 40 CFR 63.641, and malfunctions that meet the definition in 40 CFR 63.2 and periods of performance testing and monitoring system calibration shall not be considered periods of excess emissions. Malfunctions may include process unit, control device, or monitoring system malfunctions.

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

1,620 lbs of SO2/hr

Applicable Compliance Method:

Compliance shall be based upon the emission testing requirements specified in section A.V.2 of this permit.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted no later than May 31, 2007 and a second test conducted no later than May 31 2009 (tests to be 24 months apart).

b. The emission testing shall be conducted to demonstrate compliance with the SO2 emission limitation of 1,620 lbs of SO2/hr.

c. The following test method shall be employed to demonstrate compliance with the SO2 emission limitation of 1,620 lbs of SO2/hr:

i. Method 6 of 40 CFR, Part 60, Appendix A shall be employed to demonstrate compliance with the SO2 emission limitation. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

None

Emissions Unit: **Process (P014)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process (P015)
Activity Description: Sulfur Recovery Unit--DEA Unit--Incinerator stack/Claus Unit (PR 175002), Fuel Gas Absorber (PR 164282), Propylene Contactor (PR 164326), DEA Regenerator (PR 164283)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
sulfur recovery unit, DEA unit - incinerator stack/Claus unit, fuel gas absorber, propylene contactor, DEA regenerator	OAC rule 3745-18-08(C)(3)	100 lbs of sulfur dioxide (SO2) per 1,000 lbs of sulfur processed (See section A.I.2.a.)
	40 CFR Part 63, Subpart CC	See section A.I.2.b.
	40 CFR Part 63, Subpart UUU	See section A.I.2.c.
	40 CFR Part 63, Subpart A	See section A.I.2.e.

2. Additional Terms and Conditions

2.a The emission limitation of 100 lbs of SO2 per 1,000 lbs of sulfur processed is for emissions units P002, P011, and P015, combined. For a specific period of time, the amount of sulfur processed is equal to the amount of sulfur entering the Claus unit plus the amount of any sulfur bypassed to the flare(s) from the amine unit and/or the sour water stripper. The bypassing of any significant hydrogen sulfide gases from the amine unit and/or the sour water stripper to the flare(s) may be a violation of the allowable SO_2 emission rate depending on the extent of bypassing.

2.b Pursuant to the Group 1 miscellaneous process vent requirements in 40 CFR 63.641, the permittee shall reduce emissions of organic HAP's using the LIU and acid gas flares (emissions units P007 and P036) that meet the requirements of 40 CFR 63.11(b) of

subpart A. Terms and conditions for these flares are contained in the terms and conditions for emissions unit P007 and P036.

2.c This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart UUU. The permittee shall comply with the emission limitations and work practice standards in 40 CFR Part 63, Subpart UUU by no later than April 11, 2005 unless an extension of compliance is granted under 40 CFR Part 63.1563(c). Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.15 of this permit.

2.d The existing sulfur recovery unit (Claus 1) consists of three emissions units: P002, P011 and P015. Upon completion of construction of the new Claus 2 sulfur recovery unit as part of the Tier II fuels project, the Claus 1 and Claus 2 units will be administratively combined into one emissions unit, P040, as shown in PTI No. 03-13794. At that time, the terms and conditions for emissions units P002, P011 and P015 will no longer be effective, and all terms and conditions for the two Claus units will be administered under emissions unit P040.

2.e Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain daily records of the following information for this emissions unit:

   a. the total amount of sulfur processed;

   b. the total SO_2 emissions, including SO_2 emissions resulting from the bypassing of the amine unit and/or sour water stripper to the flare(s), in pounds; and

   c. the average SO_2 emission rate, in pound of SO_2 per 1,000 pounds of sulfur processed.

For a specific period of time, the amount of sulfur processed is equal to the amount of sulfur entering the Claus units plus the amount of any sulfur bypassed to the flare(s) from the amine units and/or the sour water stripper. Sulfur bypassed to the flare from the amine units and/or sour water stripper must be accounted for and reported in accordance with the provisions of section A.IV. The Director does not waive his authority to pursue violations of the applicable emission limits during periods of start-up, shutdown or malfunction.

2. The permittee shall operate and maintain an instrument for continuously monitoring and recording the SO2 emission rate from the Claus unit serving emissions units P002, P011 and P015. The monitoring shall be conducted in accordance with 40 CFR 60.13, as follows:

   a. The span value for this instrument is 125 percent of the applicable SO2 emission limitation.

   b. The performance evaluations for this SO2 monitor under 40 CFR 60.13 shall use Performance Specification 2 of 40 CFR Part 60, Appendix B.

      The permittee shall conduct an annual relative accuracy test audit (RATA) for the SO2 continuous emission monitoring equipment. Method 6 of 40 CFR Part 60, Appendix A, or other approved U.S. EPA methods shall be used for conducting the annual RATAs.

3. A statement of certification of the existing SO2 continuous emission monitoring system (CEMS) shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. Proof of certification shall be made available to representatives of the appropriate Ohio EPA District Office or local air agency upon request.

4. The permittee shall maintain records of all data obtained by the continuous SO2 CEMS including, but not limited to, lbs/hr of SO2, parts per million SO2 on an instantaneous (1-minute) basis, emissions of SO2 in units of the applicable standard (lb/1,000 lbs of sulfur processed), the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

5. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the SO2 CEMS designed to ensure continuous valid and representative readings of SO2. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous SO2 monitoring system must be kept on site and available for inspection during regular office hours.

IV. Reporting Requirements

1. The permittee shall submit quarterly excess emission and data assessment reports to the appropriate Ohio EPA District Office or local air agency by January 30, April 30, July 30 and October 30 of each year detailing the data obtained from the CEMS of the SRU during the previous quarter. The report shall include the percent availability of the SRU, the dates, duration, amounts (tons), and points of emission of excess sulfur dioxide emissions that are caused by malfunctions or shutdowns of the amine unit, sour water stripper, or the SRU, and an analysis of the cause of and corrective action taken for each malfunction (including any bypassing of the amine-claus SRU to the refinery flare system) or shutdown. The report shall also include all

instances of daily SO2 values in excess of the limitation specified in OAC rule 3745-18-08(C)(3).

2. The permittee shall submit reports within thirty (30) days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any SO2 CEMS downtime while the emissions unit was on line (date, time, duration, and reason), along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of source and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included the quarterly report.

3. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) on a quarterly basis, in writing, of all daily periods during which the average SO2 emissions exceeded 100 lbs of SO2 per 1,000 lbs of sulfur processed. The notification shall include a copy of the record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) by January 30, April 30, July 30 and October 30 of each year and shall address the data obtained during the previous calendar quarters. These reports shall also contain the total SO2 emissions for the calendar quarter (in tons).

4. If there are no excess SO2 emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30 and October 30 of each year and shall address the data obtained during the previous calendar quarter.

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

100 lbs of SO2 per 1,000 lbs of sulfur processed for emissions units P002, P011, and P015, combined

Applicable Compliance Method:

Compliance shall be based upon the results of the emission monitoring required in sections A.III.1 and A.III.2. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with Method 6 of 40 CFR Part 60, Appendix A.

VI. Miscellaneous Requirements

None

Emissions Unit: **Process (P015)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process (P017)
Activity Description: Aromatics process: Extraction column (PR 164477), Thermal Hydroalkylation Reactor (PR 164565), Stripper Column (PR 164478), Benzene Recovery Column (PR164480), Cold Box (No PR)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
aromatics process - extraction column (PR 164477), thermal hydroalkylation reactor (PR 164565), stripper column (PR 164478), benzene recovery column (PR 164480), and cold box (no PR number) with benzene vent scrubber	40 CFR Part 61, Subpart J	See section A.I.2.a and A.III.1.
	40 CFR Part 61, Subpart V	See section A.I.2.a and A.III.1.
	OAC rule 3745-21-09(T)	See section A.I.2.a and A.III.1.

2. Additional Terms and Conditions

2.a The requirements of this rule are equivalent to or less stringent than the alternative leak detection and repair (LDAR) plan submitted by the permittee. Terms and conditions for the alternative LDAR plan are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.13 of this permit.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall include the aromatics process fugitive emissions and associated components in the current site fugitive leak detection and repair (LDAR) program. The LDAR program shall

be conducted in accordance with the alternative monitoring plan submitted by the permittee. Applicable requirements are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section, of this permit.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit: **Process (P017)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process (P018)
Activity Description: Isomerization process: Stabilizer tower (PR 164491), Isomerization Reactor (PR 164976-head)(PR 164977-tail), Fuel Gas Scrubber (PR 164489)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
isomerization process fugitive emissions: stabilizer tower (PR 164491), isomerization reactor (PR 164976 - head, PR 164977 - tail), and fuel gas scrubber (PR 164489)	OAC rule 3745-21-09(T)	See section A.I.2.a and A.III.1.
	40 CFR Part 60, Subpart GGG and Subpart VV	See section A.I.2.a.

2. Additional Terms and Conditions

2.a The requirements of this rule are equivalent to or less stringent than the alternative leak detection and repair (LDAR) plan submitted by the permittee. Terms and conditions for the alternative LDAR plan are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.13 of this permit.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall include the isomerization process fugitive emissions and associated components in the current site fugitive leak detection and repair (LDAR) program. The LDAR program shall be conducted in accordance with the alternative monitoring plan submitted by the permittee. Applicable requirements are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section, of this permit.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit: **Process (P018)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Loading Rack (P023)
Activity Description: Benzene Single RR Car and TK Truck Loading Rack

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
benzene single railroad car and tank truck loading rack with benzene vent scrubber	OAC rule 3745-31-05(A)(3) (PTI No. 03-2072)	5.16 lbs of benzene/hr
	40 CFR Part 61, Subpart J	See section A.I.2.a.
	40 CFR Part 61, Subpart V	See section A.I.2.a.
	40 CFR Part 61, Subpart BB	See section A.I.2.b through A.I.2.k, A.III.4 through A.III.9, A.IV.1, and A.V.1.b through A.V.1.g.
	OAC rule 3745-21-07(E)	See section A.I.2.l.

2. Additional Terms and Conditions

2.a The requirements of this rule are equivalent or less stringent than the alternative leak detection and repair (LDAR) plan submitted by the permittee. Terms and conditions for the alternative LDAR plan are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.13 of this permit.

2.b [40 CFR 61.302(a)]
The permittee shall equip each loading rack with a vapor collection system that is:

i. Designed to collect all benzene vapors displaced from tank trucks and railcars during loading, and

ii. Designed to prevent any benzene vapors collected at one loading rack from passing through another loading rack to the atmosphere.

2.c [40 CFR 61.302(b)]
The permittee shall install a control device and reduce benzene emissions routed to the atmosphere through the control device by 98 weight percent.

2.d The permittee shall operate any flare used to comply with 40 CFR 61.302(b) in accordance with the requirements of 40 CFR 60.18(b) through (f).

2.e [40 CFR 61.302(d)]
The permittee shall limit the loading of benzene into vapor-tight tank trucks and vapor-tight railcars using the following alternative method for each car every time the car is loaded:

i. Connect the loading arms, vent connections, grounding cable, etc. per the loading procedures.

ii. Pressurize each car with nitrogen to 30 psig. For new cars, or cars returning from the maintenance shop, the nitrogen pressure must be taken to 35 psig.

iii. When the nitrogen pressure reaches 30 psig (or 35 psig for new or repaired cars) at the vent end pressure gauge of each car, close the nitrogen valve to each car.

iv. Using liquid soap, spray each of the following: every flange, isolation valves, safety valves, bleed valves, manways (top and bottom), and level probe connections.

v. Report any and all leaks to the Operating Supervisor and repair as needed.

vi. If a major repair is needed, such as changing out a safety valve or replacing a valve or hose gasket; after the repair, re-pressure that particular car and re-soap for leaks.

vii. When all leaks are repaired or if there were no leaks, slowly release the pressure from each car to 10 psig or less to the benzene vent scrubber.

viii. Continue with the normal loading procedure.

2.f [40 CFR 61.302(f)]
The permittee shall limit loading of benzene to tank trucks and railcars equipped with vapor collection equipment that is compatible with the affected facility's vapor collection system.

2.g [40 CFR 61.302(g)]
The permittee shall limit loading of tank trucks and railcars to tank trucks and railcars whose collection systems are connected to the affected facility's vapor collection systems.

2.h [40 CFR 61.302(h)]
The permittee shall ensure that the vapor collection and benzene loading equipment of tank trucks and railcars shall be designed and operated to prevent gauge pressure in the tank truck or railcar tank from exceeding, during loading, the initial pressure the tank was pressured up to and shown to be vapor tight at during the most recent vapor-tightness test using Method 27 of Appendix A to 40 CFR Part 60. As an alternative to Method 27, the permittee may use the procedures listed in term and condition A.I.2.e.i. through A.I.2.e.viii of this emissions unit, as allowed by 40 CFR 61.302(d)(3) to conduct the vapor-tightness test. This vapor-tightness test pressure is not to be exceeded when measured by the procedures specified in 40 CFR 61.304(c).

2.i [40 CFR 61.302(i)]
The permittee shall ensure that no pressure-vacuum vent in the affected facility's vapor collection system for tank trucks and railcars shall begin to open at a system pressure less than the maximum pressure at which the tank truck or railcar is operated.

2.j [40 CFR 61.302(k)]
The permittee shall inspect the vapor collection system and the control device for detectable emissions, and shall repair any leaks detected, in accordance with 40 CFR 61.242-11 (e) and (f). This inspection of the vapor collection system and control device shall be done during the loading of tank trucks or railcars.

2.k [40 CFR 61.302(l)]
Vent systems that contain valves that could divert a vent stream from a control device shall have car-sealed opened all valves in the vent system from the emission source to the control device, and car-sealed closed all valves in the vent system that would lead the vent stream to the atmosphere, either directly or indirectly, bypassing the control device.

2.l The requirements of this rule are less than stringent than the requirements of 40 CFR Part 61, Subpart BB.

II. Operational Restrictions

1. The permittee shall use submerged fill whenever this emissions unit is in operation.

2. Pursuant to the U.S. EPA approval letter dated November 12, 1998 for alternate monitoring parameters in accordance with 40 CFR 63.151(g), the following operating parameters shall be met by the permittee:

   a. benzene vent scrubber:

      i. maintain the lean solvent temperature less than 120 degrees Fahrenheit.

      ii. maintain the rich solvent pH greater than 6.5.

      iii. maintain the rich solvent percent hydrocarbon less than 10 percent.

   b. tetra stripper solvent regenerator:

      i. maintain the bottoms temperature greater than 275 degrees Fahrenheit.

3. The permittee shall operate the benzene vent scrubber as the control device for this emissions unit whenever clean tank trucks and/or railcars are being loaded.

III. Monitoring and/or Record keeping

1. The permittee shall include the benzene single railroad car and tank truck loading rack fugitive emissions and associated components in the current site fugitive leak detection and repair (LDAR) program. The LDAR program shall be conducted in accordance with the alternative monitoring plan submitted by the permittee. Applicable requirements are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.13 of this permit.

2. The permittee shall calibrate, maintain, and operate according to manufacturers specifications, device(s) to continuously monitor the temperature of the scrubber absorbing fluid. The device(s) shall be operated such that the benzene vent scrubber lean solvent temperature and tetra stripper solvent regeneration bottoms temperature can be determined.

3. The permittee shall obtain daily samples of the scrubber absorbing fluid and conduct an analysis of the fluid for rich solvent pH and rich solvent percent hydrocarbon.

4. [40 CFR 61.303(e)]
   The permittee of an affected facility who wishes to demonstrate compliance with the standards specified under 40 CFR 61.302(b) using control devices other than an incinerator, steam generating unit, process heater, carbon adsorber, or flare shall provide the Administrator with information describing the operation of the control device and

the process parameter(s) that would indicate proper operation and maintenance of the device.

The Administrator may request further information and will specify appropriate monitoring procedures or requirements.

5. [40 CFR 61.303(f)]
Each permittee of an affected facility complying with 40 CFR 61.302(e)(1) shall install, calibrate, maintain, and operate a recording pressure measurement device (magnehelic gauge or equivalent device) and an audible and visible alarm system that is activated when the pressure vacuum specified in 40 CFR 61.302(e)(1) is not attained. The permittee shall place the alarm system so that it can be seen and heard where cargo transfer is controlled and on the open deck.

6. [40 CFR 61.303(g)]
Permittees using a vent system that contains valves that could divert a vent stream from a control device used to comply with the provisions of this subpart shall do one or a combination of the following:

   a. Install a flow indicator immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere. The flow indicator shall be capable of recording flow at least once every 15 minutes.

   b. Monitor the valves once a month, checking the position of the valves and the condition of the car seal, and identify all times when the car seals have been broken and the valve position has been changed (i.e., from opened to closed for valves in the vent piping to the control device and from closed to open for valves that allow the stream to be vented directly or indirectly to the atmosphere).

7. [40 CFR 61.305(c)]
If a vent system containing valves that could divert the emission stream away from the control device is used, each permittee subject to the provisions of this subpart shall keep for at least 2 years up-to-date, readily accessible continuous records of:

   a. All periods when flow is indicated if flow indicators are installed under 40 CFR 61.303(g)(1).

   b. All times when maintenance is performed on car-sealed valves, when the car seal is broken, and when the valve position is changed (i.e., from open to closed for valves in the vent piping to the control device and from closed to open for valves that vent the stream directly or indirectly to the atmosphere bypassing the control device) if valves are monitored under 40 CFR 60.303(g)(2).

8. [40 CFR 61.305(g)]
The permittee of an affected facility shall keep the vapor-tightness documentation required under 40 CFR 61.302(d) on file at the affected facility in a permanent form available for inspection.

9. [40 CFR 61.305(h)]
The permittee of an affected facility shall update the documentation file required under 40 CFR 61.302(d) for each tank truck or railcar at least once per year to reflect current test results as determined by the appropriate method. The permittee shall include, as a minimum, the following information in this documentation:

   a. test title;

   b. tank truck or railcar owner and address;

   c. tank truck or railcar identification number;

   d. testing location;

   e. date of test;

   f. tester name and signature;

   g. witnessing inspector: name, signature, and affiliation;

   h. test results, including, for railcars and tank trucks, the initial pressure up to which the tank was pressured at the start of the test, and any repairs that were necessary to ensure vapor tightness; and

   i. a checklist indicating that each of the procedures outlined in the alternative method has been followed.

IV. Reporting Requirements

1. [40 CFR 61.305(f)]
Each permittee of an affected facility subject to the requirements of 40 CFR 61.302 shall submit to the Administrator quarterly reports of the following information. The permittee shall submit the initial report within 90 days after the effective date of this subpart or 90 days after startup for a source that has an initial startup date after the effective date.

   a. all periods recorded under 40 CFR 61.305(c)(1) when the vent stream is diverted from the control device;

b. all times recorded under 40 CFR 61.305(c)(2) when maintenance is performed on car-sealed valves, when the car seal is broken, and when the valve position is changed; and

c. all deviations from the operational restrictions in sections A.II.2.a and A.II.2.b of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

5.16 lbs of benzene/hr

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be based upon the record keeping requirements specified in sections A.III.2 through A.III.9 for this emissions unit. If required, the permittee shall demonstrate compliance with the hourly allowable benzene emission limitation by conducting emission testing in accordance with Methods 1 through 4 and Method 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

1.b [40 CFR 61.304(a)(1)-(4)]
The procedures for determining compliance with 40 CFR 61.302(b) for all control devices other than flares is as follows:

i. All testing equipment shall be prepared and installed as specified in the appropriate test methods.

ii. The time period for a performance test shall be not less than 6 hours, during which at least 300,000 liters of benzene are loaded. If the throughput criterion is not met during the initial 6 hours, the test may be either continued until the throughput criterion is met, or resumed the next day with at least another 6 complete hours of testing.

iii. For intermittent control devices:

(1) The vapor holder level of the intermittent control device shall be recorded at the start of the performance test. The end of the performance test shall coincide with the time when the vapor holder is at its original level.

(2) At least two startups and shutdowns of the control device shall occur during the performance test. If this does not occur under an automatically controlled operation, the system shall be manually controlled.

iv. An emission testing interval shall consist of each 5-minute period during the performance test. For each interval:

(1) The reading from each measurement instrument shall be recorded.

(2) Method 1 or 1A of 40 CFR Part 60, Appendix A, as appropriate, shall be used for selection of the sampling site.

(3) The volume exhausted shall be determined using Method 2, 2A, 2C, or 2D of 40 CFR Part 60, Appendix A, as appropriate.

(4) The average benzene concentration upstream and downstream of the control device in the vent shall be determined using Method 25A or Method 25B of 40 CFR Part 60, Appendix A, using benzene as the calibration gas. The average benzene concentration shall correspond to the volume measurement by taking into account the sampling system response time.

1.c [40 CFR 61.304(a)(5)]
The mass emitted during each testing interval shall be calculated as follows:

Mi = FKVsC

where:

Mi = Mass of benzene emitted during testing interval i, kg;

Vs = Volume of air-vapor mixture exhausted, m^3 at standard conditions;

C = Benzene concentration (as measured) at the exhaust vent, ppmv;

K = Density, (kg/m^3 benzene), standard conditions;

K = 3.25 for benzene;

F = Conversion factor, (m^3 benzene/m^3 air)(1/ppmv);

F = 10^-6; and

s = Standard conditions, 20 degrees Celsius and 760 mm Hg.

1.d [40 CFR 61.304(a)(6)]
The benzene mass emission rates before and after the control device shall be calculated as follows:

E = (summation of Mi, i=1,n)/T

where:

E = Mass flow rate of benzene emitted, kg/hr;

Mi = Mass of benzene emitted during testing interval i, kg;

T = Total time of all testing intervals, hr; and

n = Number of testing intervals.

1.e [40 CFR 61.304(a)(7)]
The percent reduction across the control device shall be calculated as follows:

R = [(Eb-Ea)/Eb](100)

where:

R = Control efficiency of control device, %;

Eb = Mass flow rate of benzene prior to control device, kg/hr; and

Ea = Mass flow rate of benzene after control device, kg/hr.

1.f [40 CFR 61.304(c)]
For the purpose of determining compliance with 40 CFR 61.302(h), the following procedures shall be used:

i. Calibrate and install a pressure measurement device (liquid manometer, magnehelic gauge, or equivalent instrument), which has a precision of +/- 2.5 mm water in the range that the tank truck or railcar was initially pressured to during the most recent vapor-tightness test.

ii. Connect the pressure measurement device to a pressure tap in the affected facility's vapor collection system, located as close as possible to the connection with the tank truck or railcar.

iii. During the performance test, record the pressure every 5 minutes while a tank truck or railcar is being loaded, and record the highest instantaneous pressure that occurs during each loading cycle. Every loading rack shall be tested at least once during the performance test.

iv. If more than one loading rack is used simultaneously, then the performance test shall be conducted simultaneously to represent the maximum capacity.

1.g [40 CFR 61.304(e)]
Immediately prior to a performance test required for determination of compliance with 40 CFR 61.302(b), all potential sources of vapor leakage in the affected facility's vapor collection system equipment shall be inspected for detectable emissions as required in 40 CFR 61.302(k). The monitoring shall be conducted only while a vapor-tight tank truck or railcar is being loaded. All identified leaks in the terminal's vapor collection system shall be repaired prior to conducting the performance test.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Oil/Water Separator System (P025)
Activity Description: Benzene NESHAPs Sewer System

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
benzene NESHAPS sewer system including oil/water separator with thermal oxidizer	OAC rule 3745-31-05(A)(3) (PTI No. 03-7545)	less than 0.1 lb of benzene/hr 1.0 lb of volatile organic compounds (VOC)/hr 1.92 lbs of nitrogen oxides (NOx)/hr
	OAC rule 3745-21-09(M)	See section A.I.2.b.
	40 CFR Part 61, Subpart FF	See section A.I.2.c, A.III.1, A.IV.1, and A.V.3.
	40 CFR Part 60, Subpart J	20 parts per million sulfur dioxide from thermal oxidizer exhaust (dry basis, zero percent excess air)(See section A.I.2.d.)

2. **Additional Terms and Conditions**

2.a The permittee currently employs a thermal oxidizer as the control equipment; however, the permittee has the option of employing any of the control equipment listed in 40 CFR Part 61, Subpart FF and, as such, would be responsible for any associated monitoring, record keeping, reporting

and/or testing requirements. Should a change in control equipment occur, the permittee shall notify the appropriate Ohio EPA District Office or local air agency within 30 days after installation.

2.b Except for any wastewater separator which is used solely for once-through, noncontact cooling water or for intermittent tank farm drainage resulting from accumulated precipitation, the permittee shall control the emissions of VOC from any wastewater separator by equipping all forebay sections and other separator sections with covers and seals which minimize the amount of oily water exposed to the ambient air. In addition, all covers and forebay and separator sections shall be equipped with lids and seals which are kept in a closed position at all times except when in actual use.

2.c The permittee shall comply with all applicable requirements in 40 CFR Part 61, Subpart FF for this emissions unit. Requirements are listed in section A.9 of Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section of this permit.

2.d This emissions unit is subject to monitoring requirements in 40 CFR Part 60, Subpart J for waste gases that are routed to the thermal oxidizer from the benzene NESHAPS sewer system. Previous sampling of the waste gases indicated that standard deviations for measured concentrations of hydrogen sulfide exceeded acceptance criteria contained in Subpart J regulations. Thus, the permittee submitted an alternative monitoring plan on November 7, 2003; and proposed to meet a sulfur dioxide (SO2) limit of 20 parts per million (dry basis, zero percent excess air) for exhaust from the thermal oxidizer stack. This limit is equivalent to the hydrogen sulfide standard under 40 CFR 60.104(a)(1), as specified in 40 CFR 60.105(a)(3)(ii).

To demonstrate compliance with the 20 parts per million limit for SO2, the permittee has agreed to conduct stack testing on an annual basis concurrent with other required stack testing as listed in section A.V.2 for this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall comply with all applicable monitoring and record keeping requirements in 40 CFR Part 61, Subpart FF for this emissions unit. Requirements are listed in the section A.9 of Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section of this permit.

2. The permittee shall include the benzene NESHAPS sewer system, including oil/water separator, fugitive emissions and associated components in the current site leak detection and repair (LDAR) program. The LDAR program shall be conducted in accordance with the alternative monitoring plan submitted by the permittee. Applicable requirements are listed in Part II - Specific Facility Terms and Conditions, State and Fedrally Enforceable Section A.13 of this permit.

IV. Reporting Requirements

1. The permittee shall comply with all applicable reporting requirements in 40 CFR Part 61, Subpart FF for this emissions unit. Requirements are listed in section A.9 of Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section of this permit.

V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

less than 0.1 lb of benzene/hr

Applicable Compliance Method:

The benzene emission limitation is based on a maximum of 0.1 percent by weight of the total VOC emissions for this emissions unit (from information supplied by the permittee on the constituent fraction of benzene contained in the oil which enters the oil/water separator. If required, the permittee shall determine compliance with the benzene emission limitation by using Methods 1 through 4 and Method 18, 25, or 25A of 40 CFR Part 60, Appendix A, or other approved USEPA methods.

1.b Emission Limitation:

1.0 lb of VOC/hr

Applicable Compliance Method:

Compliance shall be based upon the results of emission testing conducted in accordance with Methods 1 through 4 and Method 18, 25 or 25A of 40 CFR Part 60, Appendix A.

1.c Emission Limitation:

1.92 lbs of NOx/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly refinery fuel gas combustion rate for the thermal oxidizer, in million standard cubic feet per hour, by the appropriate NOx emission factor, in pound(s) per million standard cubic feet, from data provided by the equipment manufacturer, and then dividing by the maximum heat input to the thermal oxidizer. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with Methods 1 through 4 and Method 7, 7A, 7B, 7C, 7D, or 7E of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:

20 parts per million SO2 from thermal oxidizer exhaust (dry basis, zero percent excess air)

Applicable Compliance Method:

Compliance shall be based upon the results of emission testing conducted in accordance with Methods 1 through 4, and Method 6 of 40 CFR Part 60, Appendix A.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted on an annual basis.

b. The emission testing shall be conducted to demonstrate compliance with the emission limitations for the thermal oxidizer as follows:

i. 1.0 lb of VOC/hr;

ii. minimum destruction efficiency of 99 percent for benzene; and

iii. SO2 limit of 20 parts per million (dry basis, zero percent excess air)

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

i. VOC - Method 18, 25, or 25A of 40 CFR, Part 60, Appendix A.; and

ii. SO2 - Method 6 of 40 CFR, Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test method(s) which must be employed to demonstrate compliance with the 99 percent destruction efficiency for benzene are specified below:

i. The destruction efficiency shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

3. The permittee shall comply with all applicable testing requirements in 40 CFR Part 61, Subpart FF for this emissions unit. Requirements are listed in section A.9 of Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process (P027)
Activity Description: Decanted Oil Filter with Knockout Drum

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
decanted oil filter with knockout drum controlled by flare	40 CFR Part 63, Subpart CC	See section A.I.2.a.
	OAC rule 3745-31-05(A)(3) (PTI 03-6995)	less than 0.1 lb of volatile organic compounds (VOC)/hr
	OAC rule 3745-21-09(T)	See sections A.I.2.b and A.III.1.
	40 CFR Part 63, Subpart A	See section A.I.2.c.

2. Additional Terms and Conditions

2.a This emissions unit is controlled by the FCC flare (emissions unit P006). Thus, the permittee shall comply with all terms and conditions for emissions unit P006.

2.b The requirements of this rule are equivalent or less stringent than the alternative leak detection and repair (LDAR) plan submitted by the permittee. Terms and conditions for the alternative LDAR plan are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.13 of this permit.

2.c Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall include the decanted oil filter with knockout drum and associated components in the current site fugitive leak detection and repair (LDAR) program. The LDAR program shall be conducted in accordance with the alternative monitoring plan submitted by the permittee. Applicable requirements are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.13 of this permit.

IV. Reporting Requirements

None

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

less than 0.1 lb of VOC/hr

Applicable Compliance Method:

The permittee may determine compliance with the hourly allowable VOC limitation by multiplying an emission factor of 10.8 lbs of VOC/day* vented to the FCC flare from this emissions unit, dividing by 24 hr/day, and then multiplying by (1 - 95% control efficiency of the FCC flare).

* The emission factor was supplied by the company, and was based on material balance in conjunction with a Pro/II Version 3.12 computer simulation for emissions vented to the FCC flare.

VI. Miscellaneous Requirements

None

Emissions Unit: **Process (P027)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process (P028)
Activity Description: Oily sludge system with thermal oxidizer

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
oily sludge system with thermal oxidizer	OAC rule 3745-21-09(T)	See section A.I.2.a and A.III.1.
	40 CFR Part 60, Subpart GGG and Subpart VV	See section A.I.2.a.

2. Additional Terms and Conditions

2.a The requirements of this rule are equivalent or less stringent than the alternative leak detection and repair (LDAR) plan submitted by the permittee. Terms and conditions for the alternative LDAR plan are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.13 of this permit.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall include the oily sludge system process fugitive emissions and associated components in the current site fugitive leak detection and repair (LDAR) program. The LDAR program shall be conducted in accordance with the alternative monitoring plan submitted by the permittee. Applicable requirements are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.13 of this permit.

2. This emissions unit is controlled by the thermal oxidizer which is also used to control emissions from emissions unit P025. Therefore, the permittee shall comply with all applicable monitoring and record keeping requirements for the thermal oxidizer listed for emissions unit P025.

IV. Reporting Requirements

1. The permittee shall comply with all applicable reporting requirements for the thermal oxidizer listed for emissions unit P025.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit: **Process (P028)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process (P030)
Activity Description: Reformer

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
catalytic reformer, controlled by LIU flare	40 CFR Part 63, Subpart UUU	See sections A.I.2.a and A.I.2.b.
	40 CFR Part 63, Subpart A	See section A.I.2.c.

2. Additional Terms and Conditions

2.a This emissions unit is controlled by the LIU flare (emissions unit P007). Thus, the permittee shall comply with all terms and conditions for emissions unit P007.

2.b This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart UUU for catalytic reformers. Applicable rule are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.15 of this permit.

2.c Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit: **Process (P030)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process (P031)
Activity Description: Knock Motors - Laboratory

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
4 horsepower, gasoline fired stationary small internal combustion engine (knock motors, laboratory)	OAC rule 3745-17-11(B)(5)(a)	0.310 pound of particulate emissions (PE) per million Btu of actual heat input for a stationary small internal combustion engine
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-18-06	Exempt, see section A.I.2.a.

2. Additional Terms and Conditions

2.a This emissions unit is exempt from the requirements of this rule because the rated heat input capacity of this emissions unit is less than 10 mmBtu/hr total rated capacity.

II. Operational Restrictions

1. The permittee shall burn only gasoline in this emissions unit.

III. Monitoring and/or Record keeping

1. For each day during which the permittee burns a fuel other than gasoline, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than gasoline was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.310 pound of PE per million Btu of actual heat input

Applicable Compliance Method:

The permittee may determine compliance with the limitation above based on an emission factor from AP-42, Table 3.3-1. (revised 10/96) of 0.10 lb of PE (condensible)/mmBtu of actual heat input.

If required, the permittee shall demonstrate compliance with the limitation above in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.b Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit: **Process (P031)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Process (P032)
Activity Description: Knock Motors - Plant

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
4 horsepower, gasoline fired stationary small internal combustion engine (knock motors, plant)	OAC rule 3745-17-11(B)(5)(a)	0.310 pound of particulate emissions (PE) per million Btu of actual heat input for a stationary small internal combustion engine
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-18-06	Exempt, see section A.I.2.a.

2. Additional Terms and Conditions

2.a This emissions unit is exempt from the requirements of this rule because the rated heat input capacity of this emissions unit is less than 10 mmBtu/hr total rated capacity.

II. Operational Restrictions

1. The permittee shall burn only gasoline in this emissions unit.

III. Monitoring and/or Record keeping

1. For each day during which the permittee burns a fuel other than gasoline, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than gasoline was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.310 pound of PE per million Btu of actual heat input

Applicable Compliance Method:

The permittee may determine compliance with the limitation above based on an emission factor from AP-42, Table 3.3-1. (revised 10/96) of 0.10 lb of PE (condensible)/mmBtu of actual heat input.

If required, the permittee shall demonstrate compliance with the limitation above in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.b Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: SRU Cooling Tower (P033)
Activity Description: SRU Cooling Tower

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
sulfur recovery unit cooling tower	OAC rule 3745-31-05(A)(3) (PTI No. 03-16099)	22.95 tons of particulate emissions (PE)/yr The requirements of this rule also include compliance with OAC rule 3745-17-11(B) and OAC rule 3745-17-07(A).
	OAC rule 3745-17-11(B)	5.24 lbs of PE/hr See section A.I.2.a.
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

2. Additional Terms and Conditions

2.a The total dissolved solids (TDS) present in cooling water drift is directly responsible for the formation of particulate emissions when the drift is discharged from a cooling tower. The process weight rate (PWR) used to determine the allowable particulate mass emission rate is the total tons of TDS processed per hour through the cooling tower. Based on the maximum TDS concentration for optimum cooling tower operation of 1600

ppm and the cooling water maximum process flow rate of 3,600 gallons per minute, a PWR of 1.442 tons of TDS per hour was calculated. Using Table 1 in OAC rule 3745-17-11(B), the allowable particulate mass emission rate was determined to be 5.24 lbs/hr.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall test and record the TDS content, in ppm, of the cooling water at least once per week. The TDS content shall be measured using test procedures that conform to regulation 40 CFR 136, "Test Procedures For The Analysis of Pollutants" or an equivalent method approved by the Ohio EPA, Northwest District Office.

2. The permittee shall calculate and record the particulate emissions, in pounds per hour. The particulate emissions shall be calculated as follows:

   [(3,600 gallons/minute) x (ppm TDS) x (0.0002) x (60 min/hr) x (0.0584)] / (7000 grains/lb) = particulate emissions, in lbs/hr

   where:

   3,600 gallons/minute = the maximum water flow rate;
   ppm TDS = the TDS level;
   0.0002 = the maximum drift loss factor;
   60 min/hr = conversion factor for minutes to hours;
   0.0584 = conversion factor for ppm to grains/gallon; and
   7000 gr/lb = conversion factor for grains to pounds.

IV. Reporting Requirements

1. The permittee shall submit deviation reports in accordance with the general terms and conditions of this permit that identify any exceedances of the allowable mass emission limitation.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

5.24 lbs of PE/hr

Applicable Compliance Method:

Compliance shall be demonstrated by the monitoring and record keeping requirements specified in sections A.III.1 and A.III.2 of these terms and conditions. If required, the permittee shall conduct drift measurement testing to determine the drift factor for this cooling tower utilizing the "Isokinetic Drift Measurement Test Code for Water Cooling Towers", ATC-140(94), June, 1994 (or the most recent edition) from the Cooling Technology Institute.

1.b Emission Limitation:

22.95 tons of PE/yr

Applicable Compliance Method:

The annual emission limitation was derived by multiplying the hourly emission limitation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

1.c Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, the permittee shall conduct visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: BH Cooling Tower (P034)
Activity Description: Boiler House Cooling Tower

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
boiler house cooling tower	OAC rule 3745-31-05(A)(3) (PTI No. 03-16099)	24.05 tons of particulate emissions (PE)/yr The requirements of this rule also include compliance with OAC rule 3745-17-11(B) and OAC rule 3745-17-07(A).
	OAC rule 3745-17-11(B)	5.49 lbs of PE/hr See section A.I.2.a.
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

2. Additional Terms and Conditions

2.a The total dissolved solids (TDS) present in cooling water drift is directly responsible for the formation of particulate emissions when the drift is discharged from a cooling tower. The process weight rate (PWR) used to determine the allowable particulate mass emission rate is the total tons of TDS processed per hour through the cooling tower. Based on the maximum TDS concentration for optimum cooling tower operation of 1600

ppm and the cooling water maximum process flow rate of 3,860 gallons per minute, a PWR of 1.546 tons of TDS per hour was calculated. Using Table 1 in OAC rule 3745-17-11(B), the allowable particulate mass emission rate was determined to be 5.49 lbs/hr.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall test and record the TDS content, in ppm, of the cooling water at least once per week. The TDS content shall be measured using test procedures that conform to regulation 40 CFR 136, "Test Procedures For The Analysis of Pollutants" or an equivalent method approved by the Ohio EPA, Northwest District Office.

2. The permittee shall calculate and record the particulate emissions, in pounds per hour. The particulate emissions shall be calculated as follows:

   [(3,860 gallons/minute) x (ppm TDS) x (0.0002) x (60 min/hr) x (0.0584)] / (7000 grains/lb) = particulate emissions, in lbs/hr

   where:

   3,860 gallons/minute = the maximum water flow rate;
   ppm TDS = the TDS level;
   0.0002 = the maximum drift loss factor;
   60 min/hr = conversion factor for minutes to hours;
   0.0584 = conversion factor for ppm to grains/gallon; and
   7000 gr/lb = conversion factor for grains to pounds.

IV. Reporting Requirements

1. The permittee shall submit deviation reports in accordance with the general terms and conditions of this permit that identify any exceedances of the allowable mass emission limitation.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

   5.49 lbs of PE/hr

Applicable Compliance Method:

Compliance shall be demonstrated by the monitoring and record keeping requirements specified in sections A.III.1 and A.III.2 of these terms and conditions. If required, the permittee shall conduct drift measurement testing to determine the drift factor for this cooling tower utilizing the "Isokinetic Drift Measurement Test Code for Water Cooling Towers", ATC-140(94), June, 1994 (or the most recent edition) from the Cooling Technology Institute.

1.b Emission Limitation:

24.05 tons of PE/yr

Applicable Compliance Method:

The annual emission limitation was derived by multiplying the hourly emission limitation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

1.c Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, the permittee shall conduct visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

VI. Miscellaneous Requirements

None

Emissions Unit: **BH Cooling Tower (P034)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Acid Gas Flare (P036)
Activity Description: Acid Gas Flare

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
acid gas flare, non-assisted	OAC rule 3745-31-05(A)(3) (PTI 03-16277)	1.00 ton of nitrogen oxides (NOx)/year during periods of process unit start-up and shutdown
	40 CFR Part 63, Subpart UUU	See section A.I.2.a.
	40 CFR Part 60.18	See section A.I.2.b.
	40 CFR Part 63, Subpart A	See section A.I.2.c.

2. Additional Terms and Conditions

2.a This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart UUU. Applicable rules regarding use of this flare are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.15 of this permit.

2.b This emissions unit shall be designed for and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

2.c Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The flare shall be operated at all times when emissions are being vented to it.

2. The flare shall be operated with a pilot flame present at all times.

3. Only gases with a net heating value of 7.45 MJ/scm (200 Btu/scf) or greater shall be burned in this emissions unit. Net heating value shall be calculated as specified in 40 CFR Part 60.18(f)(3).

   The flare shall be operated with an exit velocity less than 18.3 m/sec (60 ft/sec) except as specified in sections A.II.4 and A.II.5.

4. If the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1000 Btu/scf), the permittee may operate the flare at an exit velocity equal to or greater than 18.3 m/sec (60 ft/sec), but less than 122 m/sec (400 ft/sec).

5. Non-assisted flares may be operated with an exit velocity less than the maximum permitted velocity, but not greater than 122 m/sec (400 ft/sec). The maximum permitted velocity shall be determined in accordance with 40 CFR Part 60.18(f)(5).

III. Monitoring and/or Record keeping

1. The permittee shall collect and record the following information during periods of start-up and shut-down:

   a. the flare flow rate, in scfm;

   b. the high heating value, in Btu/scf, as determined from the flare gas molecular weight and source of the gas;

   c. an indication of which process is undergoing start-up/shut-down mode; and

   d. the number of hours the process operated in start-up/shut-down mode.

   e. the calculated NOx emissions using the following equation:

      E = (FR) x (HV) x (T) x (EF)/1,000,000

      where:

      E = NOx emissions in tons for each individual start-up and shut-down event;
      FR = flare flow rate in scf per hour;
      HV = high heating value, in Btu/scf;

T = time duration for each start-up/shut down event, in hours; and
EF = NOx emission factor of 0.068 lb of NOx/mmBtu (AP-42 Section 13.5, Industrial Flares [9/91]).

f. The annual NOx emission rate calculated as follows:

$E_T = E_1 + E_2 + E_3 + ... + E_n$

where:

E_T =Annual NOx emissions, in tons, as summed for the calendar year from January to December; and
E_n = NOx emissions, in tons, for each individual start-up/shut-down event during the calendar year.

2. The permittee shall properly operate and maintain a device to continuously monitor the pilot flame when the emissions unit is in operation. The monitoring device and any recorder shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

   The permittee shall record the following information each day:

   a. all periods during which there was no pilot flame; and

   b. the downtime for the flare and monitoring equipment.

3. The permittee shall continually monitor either visually and/or by camera, whether or not there are visible emissions from the flare. Whenever the permittee observes visible emissions from the flare, the permittee shall monitor the visible emissions for a minimum period of 30 minutes in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22 and record the results in an operations log. Visible emissions shall be read at a point in the plume immediately after the steam has dissipated.

IV. Reporting Requirements

1. The permittee shall notify the Ohio EPA, Northwest District Office as soon as possible of any periods of start-up or shut-down.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods during which the pilot flame was not functioning properly. The reports shall include the date, time, and duration of each such period.

3. The permittee shall submit quarterly deviation reports that include visible emission readings conducted pursuant to the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22 as a result of the presence of visible emissions from the flare and that exceed a total time of five minutes during any consecutive two hour period. These quarterly deviation reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. The permittee shall submit annual written reports of any deviation (excursion) from the 1.00 tons per year NOx emission limitation. If no deviations occurred during a calendar year, the permittee shall submit an annual report which states that no deviations occurred. The report shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation

1.00 ton of nitrogen oxides (NOx)/year during periods of process unit start-up and shutdown

Applicable Compliance Method

Compliance with the annual NOx emission limitation shall be demonstrated through the record keeping requirements specified in section A.III.1.

1.b Emission Limitation:

no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 22.

VI. Miscellaneous Requirements

None

Emissions Unit: **Acid Gas Flare (P036)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: LIU Cooling Tower (P037)
Activity Description: LIU Cooling Tower

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
LIU cooling tower	OAC rule 3745-17-11(B)	43.95 lbs/hr of particulate emissions See section A.I.2.a.
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

2. Additional Terms and Conditions

2.a The total dissolved solids (TDS) present in cooling water drift is directly responsible for the formation of particulate emissions when the drift is discharged from a cooling tower. The process weight rate (PWR) used to determine the allowable particulate mass emission rate is the total tons of TDS processed per hour through the cooling tower. Based on the maximum TDS concentration for optimum cooling tower operation of 2,800 ppm and the cooling water maximum process flow rate of 66,675 gallons per minute, a PWR of 46.7378 tons of TDS per hour was calculated. Using Table 1 in OAC rule 3745-17-11(B), the allowable particulate mass emission rate was determined to be 43.95 lbs/hr.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall test and record the TDS content, in ppm, of the cooling water at least once per week. The TDS content shall be measured using test procedures that conform to regulation 40 CFR 136, "Test Procedures For The Analysis of Pollutants" or an equivalent method approved by the Ohio EPA, Northwest District Office.

2. The permittee shall calculate and record the particulate emissions, in pounds per hour. The particulate emissions shall be calculated as follows:

   [(66,675 gallons/minute) x (ppm TDS) x (0.0002) x (60 min/hr) x (0.0584)] / (7000 grains/lb) = particulate emissions, in lbs/hr

   where:

   66,675 gallons/minute = the maximum water flow rate;
   ppm TDS = the TDS level;
   0.0002 = the maximum drift loss factor;
   60 min/hr = conversion factor for minutes to hours;
   0.0584 = conversion factor for ppm to grains/gallon; and
   7000 gr/lb = conversion factor for grains to pounds.

IV. Reporting Requirements

1. The permittee shall submit deviation reports in accordance with the general terms and conditions of this permit that identify any exceedances of the allowable mass emission limitation.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

43.95 lbs/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated by the monitoring and record keeping requirements specified in sections A.III.1 and A.III.2 of these terms and conditions.

If required, the permittee shall conduct drift measurement testing to determine the drift factor for this cooling tower utilizing the "Isokinetic Drift Measurement Test Code for Water Cooling Towers", ATC-140(94), June, 1994 (or the most recent edition) from the Cooling Technology Institute.

1.b Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, the permittee shall conduct visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

VI. Miscellaneous Requirements

None

Emissions Unit: **LIU Cooling Tower (P037)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: FCC Cooling Tower (P038)
Activity Description: FCC Cooling Tower

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Northside (FCC) cooling tower	OAC rule 3745-31-05(A)(3) (PTI No. 03-13794)	9.34 tons of particulate emissions (PE)/yr 1.24 lbs of volatile organic compounds (VOC)/hr, 5.43 tons of VOC/yr See sections A.I.2.a and A.I.2.b.
	OAC rule 3745-17-11(B)	28.2 lbs of PE/hr (See section A.I.2.c)
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

2. Additional Terms and Conditions

2.a Best Available Technology (BAT) control requirements for this emissions unit have been determined to be use of high efficiency drift eliminators.

2.b The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and OAC rule 3745-17-11(B).

2.c The total dissolved solids (TDS) present in cooling water drift is directly responsible for the formation of particulate emissions when the drift is discharged from a cooling tower. The process weight rate (PWR) used to determine the allowable particulate mass emission rate is the total tons of TDS processed per hour through the cooling tower. Based on the maximum TDS concentration for optimum cooling tower operation of 2,400 ppm and the cooling water maximum process flow rate of 29,600 gallons per minute, a PWR of 17.77 tons of TDS per hour was calculated. Using Table 1 in OAC rule 3745-17-11(B), the allowable particulate mass emission rate was determined to be 28.2 lbs/hr.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall collect and record the following information for this emissions unit each week:

   a. The permittee shall test and record the TDS content, in ppm, of the cooling water ~~at least~~ once per week. The TDS content shall be measured using test procedures that conform to regulation 40 CFR 136, "Test Procedures For The Analysis of Pollutants" or an equivalent method approved by the Ohio EPA, Northwest District Office.

2. Each week, the permittee shall calculate and record the particulate emissions, in pounds per hour. The particulate emissions shall be calculated as follows:

   [(29,600 gallons/minute) x (ppm TDS) x (0.00006) x (60 min/hr) x (0.0584)] / (7000 grains/lb) = particulate emissions, in lbs/hr

   where:

   29,600 gallons/minute = the maximum water flow rate;
   ppm TDS = the TDS level;
   0.00006 = the maximum drift loss factor;
   60 min/hr = conversion factor for minutes to hours;
   0.0584 = conversion factor for ppm to grains/gallon; and
   7000 gr/lb = conversion factor for grains to pounds.

3. Each week, the permittee shall use the information in A.III.2 to calculate the cumulative particulate emissions to date, for the calendar year from January to December.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify all exceedances of the hourly and annual allowable particulate emission limitation. The quarterly deviation reports shall be submitted in accordance with the general terms and conditions of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

28.2 lbs of PE/hr

Applicable Compliance Method:

Compliance shall be demonstrated by the monitoring and record keeping requirements specified in sections A.III.1 and A.III.2 of these terms and conditions. If required, the permittee shall conduct drift measurement testing to determine the drift factor for this cooling tower utilizing the "Isokinetic Drift Measurement Test Code for Water Cooling Towers", ATC-140(94), June, 1994 (or the most recent edition) from the Cooling Technology Institute.

1.b Emission Limitation:

9.34 tons of PE/yr

Applicable Compliance Method:

The annual emission limitation was established as follows:

[(29,600 gallons/minute) x (2400 ppm TDS) x (0.00006) x (60 min/hr) x (8,760 hours/year) x (0.0584)] / [(7000 grains/lb) x (2000 lbs/ton)] = particulate emissions, in tons/yr

where:

29,600 gallons/minute = the maximum water flow rate;
ppm TDS = the TDS level;
0.00006 = the maximum drift loss factor;
60 min/hr = conversion factor for minutes to hours;
0.0584 = conversion factor for ppm to grains/gallon; and
7000 gr/lb = conversion factor for grains to pounds.

Therefore, provided compliance is shown with the TDS limitation, compliance with the annual limitation will be assumed.

1.c Emission Limitation:

1.24 lbs of VOC/hr, 5.43 tons of VOC/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly limitation by multiplying the appropriate VOC emission factor of 0.7 pounds per million gallons of flow, from AP-42 Table 5.1-2 (dated 1/95), by the maximum flow of 1,776,000 gallons per hour.

The annual emission limitation was derived by multiplying the hourly emission limitation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

1.d Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the requirements specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Emissions Unit: **FCC Cooling Tower (P038)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Sulfur Recovery Unit (P040)
Activity Description: Claus 1 and Claus 2 Sulfur Recovery Units

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
modification of the existing sulfur recovery unit (SRU) - P002, P011 and P015 (Includes an increase in capacity from 52 long tons per day (LTD) to 55 LTD for the Claus 1 SRU, new 55 LTD Claus 2 SRU, new 110 LTD tail gas treatment unit (TGTU), and replacement of the existing tail gas incinerator with a new tail gas incinerator.)	OAC rule 3745-31-05(A)(3) (PTI No. 03-13794)	See A.I.2.a. Combustion emissions from the tail gas incinerator shall not exceed the following: 0.14 lb of particulate emissions (PE)/hr, 0.61 ton of PE/yr (see A.I.2.b); 1.84 lbs of nitrogen oxides (NOx)/hr, 8.06 tons of NOx/yr; 1.88 lbs of carbon monoxide (CO)/hr, 8.23 tons of CO/yr; and 0.10 lb of volatile organic compounds (VOC)/hr, 0.44 ton of VOC/yr. Visible PE shall not exceed 20% opacity, as a six-minute average.

Emissions Unit: **Sulfur Recovery Unit (P040)**

OAC rule 3745-31-05(A)(3) (continued) (PTI No. 03-13794)	Process emissions from the tail gas incinerator shall not exceed the following: 19.18 lbs of sulfur dioxide (SO2)/hr and 84.02 tons of SO2/yr; and 250 parts per million by volume (dry basis) of SO2 at 0% excess air.
40 CFR Part 63, Subpart CC	See A.I.2.e and A.I.2.g.
40 CFR Part 63, Subpart UUU	See A.I.2.f.
40 CFR 60.104(a)(2)(i)	250 parts per million by volume (dry basis) of SO2 at 0% excess air.
OAC rule 3745-21-09(T)	leaks from petroleum refinery equipment (See A.I.2.g.)
OAC rule 3745-21-09(DD)	leaks from petroleum refinery equipment (See A.I.2.g.)
40 CFR Part 60, Subpart VV	leaks from petroleum refinery equipment (See A.I.2.g.)
40 CFR Part 60, Subpart GGG	leaks from petroleum refinery equipment (See A.I.2.g.)
40 CFR Part 61, Subpart V	leaks from petroleum refinery equipment (See A.I.2.g.)
OAC rule 3745-18-08(C)(3)	100 lbs SO2/1,000 lbs of sulfur processed (See A.I.2.a.)
OAC rule 3745-17-11(B)(1)	none (See A.I.2.c.)
OAC rule 3745-17-07(A)	none (See A.I.2.d.)
40 CFR Part 63, Subpart A	See section A.I.2.h.
40 CFR Part 61, Subpart FF	See section A.I.2.i.

2. Additional Terms and Conditions

2.a The existing sulfur recovery unit consists of three emissions units: P002, P011 and P015. After the proposed modifications are complete, the sulfur recovery unit will have one common egress point of emissions, the exhaust stack for the tail gas incinerator. Because there is only one egress point, the permittee has requested that P002, P011 and P015 be combined administratively into one new emissions unit, P040. The Ohio EPA has agreed to this administrative consolidation; however, this consolidation does not mean that P040 is not subject to OAC rule 3745-18-08. Because P040 is simply a grouping of P002, P011 and P015, it will continue to be subject to OAC rule 3745-18-08. In addition, this common egress point will include a spent air stream from the new Butane-Butylene Treater (emissions unit P041) which is routed to the oxidation chamber of the tail gas incinerator. Therefore, all the above emission limits are combined for these emissions units (P040 and P041). The bypassing of any significant hydrogen sulfide gases from the amine unit and/or the sour water stripper to the flare(s) may be a violation of the allowable SO_2 emission rate depending on the extent of bypassing.

2.b It is assumed that all particulate emissions are PM_{10}.

2.c The uncontrolled mass rate of PE* from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01(B)(14).

* The burning of gaseous fuels is the only source of PE from this emissions unit.

2.d This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

2.e Pursuant to the Group 1 miscellaneous process vent requirements in 40 CFR 63.641, the permittee shall reduce emissions of organic HAP's using a flare(s) that meets the requirements of 40 CFR 63.11(b) of subpart A.

2.f This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart UUU. The permittee shall comply with the emission limitations and work practice standards in 40 CFR Part 63, Subpart UUU. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.15 of this permit.

2.g This emissions unit is subject to the appropriate provisions (including operational restrictions, monitoring and record keeping, reporting, and testing) of OAC rule 3745-21-09(T) - Leaks from petroleum refinery equipment, OAC rule 3745-21-09(DD) - Leaks from process units that produce organic chemicals, 40 CFR Part 60, Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic

Chemicals Manufacturing Industry), 40 CFR Part 60, Subpart GGG (Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries, 40 CFR Part 63, Subpart CC (Petroleum Refinery MACT Standards), and 40 CFR Part 61, Subpart V (National Emission Standard for Equipment Leaks - Fugitive Emission Sources).

The requirements of these rules are equivalent to or less stringent than the alternative leak detection and repair (LDAR) monitoring plan submitted by the permittee, pursuant to OAC rule 3745-21-09(T)(4) and 40 CFR Part 63, Subpart CC. Terms and conditions for the alternative LDAR plan are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.13 of this permit.

2.h Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

2.i The permittee shall include this sulfur recovery unit in the current site benzene waste operations program. The program shall comply with the appropriate provisions (includes operational restrictions, monitoring and record keeping, reporting, and testing) of 40 CFR Part 61, Subpart FF. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.9 of this permit.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. Upon installation and startup of the new tail gas incinerator, the permittee shall operate and maintain equipment to continuously monitor and record SO_2 from this emissions unit in units of the applicable standard. The span value of the continuous emission monitoring system shall be 500 ppm SO_2. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

   The permittee shall maintain records of all data obtained by the continuous SO_2 monitoring system including, but not limited to, parts per million of SO_2 on an instantaneous (one-minute) basis, lbs/hr of SO_2, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

   Prior to the installation of the continuous SO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site(s) in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

   The permittee shall maintain a written quality assurance/quality control (QA/QC) plan for the SO_2 CEMS that follows the requirements of 40 CFR Part 60 Appendix F. The QA/QC plan and

logbook for the SO_2 CEMS must be kept on site and available for inspection during regular office hours.

2. The permittee shall operate and maintain equipment to continuously monitor and record the O_2 from this emissions unit in percent O_2. The span value of the continuous emission monitoring system shall be 10 percent O_2. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 or as approved by the Ohio EPA, Central Office.

   The permittee shall maintain records of all data obtained by the continuous O_2 monitoring system including, but not limited to percent O_2 on an instantaneous (one-minute) basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

   Prior to the installation of the continuous O_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

3. The permittee shall maintain daily records of the following information for this emissions unit:

   a. the total amount of sulfur processed;

   b. the total SO_2 emissions, including SO2 emissions resulting from the bypassing of the amine unit and/or sour water stripper to the flare(s), in pounds; and

   c. the average SO_2 emission rate, in pound of SO_2 per 1,000 pounds of sulfur processed.

   For a specific period of time, the amount of sulfur processed is equal to the amount of sulfur entering the Claus units plus the amount of any sulfur bypassed to the flare(s) from the amine units and/or the sour water stripper. Sulfur bypassed to the flare from the amine units and/or sour water stripper must be accounted for and reported in accordance with the provisions of sections A.IV.1 and A.IV.2. The Director does not waive his authority to pursue violations of the applicable emission limits during periods of start-up, shutdown or malfunction.

4. The permittee shall include the sulfur recovery unit fugitive emissions and associated components in the current site fugitive leak detection and repair (LDAR) program. The LDAR program shall be conducted in accordance with the alternative monitoring plan submitted by the permittee. Applicable requirements are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.13 of this permit.

IV. Reporting Requirements

1. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the

date, commencement and completion times, duration, magnitude, reason (if known for example, start-up, shutdown, or malfunction), and corrective actions taken (if any), of all instances of SO_2 values in excess of the applicable lbs/hr and NSPS limitations for SO_2.

These reports also shall identify all instances of daily SO_2 emission values in excess of the limitation specified in OAC rule 3745-18-08 (including those instances of bypassing of the Claus unit(s) due to start-up, shutdown, or malfunction) and shall specify the total SO_2 emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous SO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

2. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous O_2 system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

   a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which this emissions unit will be operated, but no later than 180 days following the completion of the modifications to this emissions unit.

   b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for SO2 of 19.18 lbs/hr, 250 parts per million by volume (dry basis) of SO2 at 0% excess air, and 100 lbs/1,000 lbs of sulfur processed.

   c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for SO2, Methods 1 through 4 and 6 of 40 CFR, Part 60, Appendix A. Alternate U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

   d. The test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

   e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

   f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

   g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

2. Within 180 days following start-up of the emissions unit with the new tail gas incinerator, the permittee shall conduct certification tests of the continuous SO_2 monitoring system pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and

witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed.

Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous SO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6.

3. Within 180 days following start-up of this emissions unit with the new tail gas incinerator, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 3. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 3.

4. Compliance with the emissions limitations in section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:

   a. Emission Limitation:

      0.14 lb of PE/hr, 0.61 ton of PE/yr

      Applicable Compliance Method:

      The permittee may demonstrate compliance with the hourly limitation by multiplying the appropriate particulate emission factor of 7.6 pounds per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), by the maximum fuel flow rate of 18,431 standard cubic foot/hr. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Methods 1 through 4, and 5 of 40 CFR Part 60, Appendix A.

      The annual emission limitation was derived by multiplying the hourly emission limitation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

b. Emission Limitation:

1.84 lbs of NOx/hr, 8.06 tons of NOx/yr

Applicable Compliance Method:

The permittee may demonstrate compliance with the hourly limitation by multiplying the appropriate NOx emission factor of 100 pounds per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), by the maximum fuel flow rate of 18,431 standard cubic foot/hr. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Methods 1 through 4, and 7 of 40 CFR Part 60, Appendix A. The annual emission limitation was derived by multiplying the hourly emission limitation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

c. Emission Limitation:

1.88 lbs of CO/hr, 8.23 tons of CO/yr

Applicable Compliance Method:

The CO emission limitation was derived from a vendor guarantee of a maximum CO emission rate of 100 ppm. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Methods 1 through 4, and 10 of 40 CFR Part 60, Appendix A.

The annual emission limitation was derived by multiplying the hourly emission limitation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

d. Emission Limitation:

0.10 lb of VOC/hr, 0.44 ton of VOC/yr

Applicable Compliance Method:

The permittee may demonstrate compliance with the hourly limitation by multiplying the appropriate VOC emission factor of 5.5 pounds per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), by the maximum fuel flow rate of 18,431 standard cubic foot/hr. If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4, and 18, 25, or 25A, as appropriate.

The annual emission limitation was derived by multiplying the hourly emission limitation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

e. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a six-minute average.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

f. Emission Limitation:

250 parts per million by volume (dry basis) of SO2 at 0% excess air

Applicable Compliance Method:

The permittee shall demonstrate compliance by conducting emission testing in accordance with the requirements in section A.V.1. and by the monitoring and record keeping in A.III.1 and A.III.2.

g. Emission Limitation:

19.18 lbs of SO2/hr, 84.02 tons of SO2/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly limitation by conducting emission testing in accordance with the requirements in section A.V.1., and by the monitoring and record keeping in A.III.1 and A.III.2.

The annual emission limitation was derived by multiplying the hourly emission rate derived from the following equation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

h. Emission Limitation:

100 lbs of SO2/1,000 lbs of sulfur processed

Applicable Compliance Method:

The permittee shall demonstrate compliance by conducting emission testing in accordance with the requirements in section A.V.1. and by the monitoring and record keeping in A.III.1 and A.III.3.

VI. Miscellaneous Requirements

1. The permittee shall maintain a quality assurance/quality control plan for the continuous SO_2 monitoring system designed to ensure continuous valid and representative readings of SO_2. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous SO_2 monitoring system must be kept on site and available for inspection during regular office hours.

2. The permittee shall maintain a quality assurance/quality control plan for the continuous O_2 monitoring system designed to ensure continuous valid and representative readings. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 system must be kept on site and available for inspection during regular office hours.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Butane-Butylene (B-B) Treater (P041)
Activity Description: Butane-Butylene (B-B) Treater

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Butane-Butylene (B-B) Treater	OAC rule 3745-31-05(A)(3) (PTI No. 03-13794)	See A.I.2.a and A.I.2.b. Combustion emissions from the tail gas incinerator shall not exceed the following: 0.14 lb of particulate emissions (PE)/hr, 0.61 ton of PE/yr (see A.I.2.c); 1.84 lbs of nitrogen oxides (NOx)/hr, 8.06 tons of NOx/yr; 1.88 lbs of carbon monoxide (CO)/hr, 8.23 tons of CO/yr; and 0.10 lb of volatile organic compounds (VOC)/hr, 0.44 ton of VOC/yr. Visible PE shall not exceed 20% opacity, as a six-minute average.
	OAC rule 3745-31-05(A)(3)	

Emissions Unit: **Butane-Butylene (B-B) Treater (P041)**

(continued) (PTI No. 03-13794)	Process emissions from the tail gas incinerator shall not exceed the following: 19.18 lbs of sulfur dioxide (SO2)/hr and 84.02 tons of SO2/yr; and 250 parts per million by volume (dry basis) of SO2 at 0% excess air. Process emissions during the extended startup period shall not exceed 26.40 tons of SO2 (see A.I.2.b).
OAC rule 3745-18-06(E)	See A.I.2.d.
OAC rule 3745-17-11(B)(1)	none (See A.I.2.e.)
OAC rule 3745-17-07(A)	none (See A.I.2.f.)
40 CFR Part 61, Subpart FF	See A.I.2.g.
OAC rule 3745-21-09(T)	leaks from petroleum refinery equipment (See A.I.2.h.)
OAC rule 3745-21-09(DD)	leaks from petroleum refinery equipment (See A.I.2.h.)
40 CFR Part 60, Subpart VV	leaks from petroleum refinery equipment (See A.I.2.h.)
40 CFR Part 60, Subpart GGG	leaks from petroleum refinery equipment (See A.I.2.h.)
40 CFR Part 61, Subpart V	leaks from petroleum refinery equipment (See A.I.2.h.)
40 CFR Part 63, Subpart CC	leaks from petroleum refinery equipment (See A.I.2.h.)
40 CFR Part 63, Subpart A	See section A.I.2.i.

2. Additional Terms and Conditions

2.a The spent air stream from the B-B Treater shall be routed to the oxidation chamber of the new tail gas incinerator at the sulfur recovery unit (SRU), emissions unit P040. The new tail gas incinerator is a common egress point for emissions from the SRU and the B-B Treater spent air stream; therefore, all the emission limitations are combined for these emission units (P040 and P041).

2.b The permittee has indicated that due to the long construction schedule for the SRU, the B-B Treater will be in operation prior to the completion of the modifications to the SRU. In order to minimize emissions during the extended startup period, the permittee shall route the spent air stream from P041 to the incinerator at the existing SRU.

SO2 emissions shall not exceed 26.40 tons during the extended startup period. This period shall be from the date of the issuance of PTI No. 03-13794 (administrative modification), until such time as the modifications are completed for emissions unit P040, or until 10/31/2005, whichever comes first.

2.c It is assumed that all particulate emissions are PM_{10}.

2.d The emission limitation specified by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.e The uncontrolled mass rate of PE* from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01(B)(14).

* The burning of gaseous fuels is the only source of PE from this emissions unit.

2.f This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

2.g The permittee shall include the B-B Treater in the current site benzene waste operations program. The program shall comply with the appropriate provisions (includes operational restrictions, monitoring and record keeping, reporting, and testing) of 40 CFR Part 61, Subpart FF. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.9 of this permit.

2.h This emissions unit is subject to the appropriate provisions (including operational restrictions, monitoring and record keeping, reporting, and testing) of OAC rule 3745-21-09(T) - Leaks from petroleum refinery equipment, OAC rule 3745-21-09(DD) - Leaks from process units that produce organic chemicals, 40 CFR Part 60, Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry), 40 CFR Part 60, Subpart GGG (Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries, 40 CFR Part 63, Subpart CC (Petroleum Refinery MACT Standards), and 40 CFR Part 61, Subpart V (National Emission Standard for Equipment Leaks - Fugitive Emission Sources).

The requirements of these rules are equivalent to or less stringent than the alternative leak detection and repair (LDAR) monitoring plan submitted by the permittee, pursuant to OAC rule 3745-21-09(T)(4) and 40 CFR Part 63, Subpart CC. Terms and conditions for the alternative LDAR plan are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.13 of this permit.

2.i Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall operate and maintain equipment to continuously monitor and record SO_2 from this emissions unit in units of the applicable standard. The span value of the continuous emission monitoring system shall be 500 ppm SO_2. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

   The permittee shall maintain records of all data obtained by the continuous SO_2 monitoring system including, but not limited to, parts per million of SO_2 on an instantaneous (one-minute) basis, and lbs/hr of SO_2; results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

   Prior to the installation of the continuous SO_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site(s) in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

   The permittee shall maintain a written quality assurance/quality control (QA/QC) plan for the SO_2 CEMS that follows the requirements of 40 CFR Part 60 Appendix F. The QA/QC plan and logbook for the SO_2 CEMS must be kept on site and available for inspection during regular office hours.

2. The permittee shall operate and maintain equipment to continuously monitor and record the O_2 from this emissions unit in percent O_2. The span value of the continuous emission monitoring system shall be 10 percent O_2. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 or as approved by the Ohio EPA, Central Office.

   The permittee shall maintain records of all data obtained by the continuous O_2 monitoring system including, but not limited to percent O_2 on an instantaneous (one-minute) basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

   Prior to the installation of the continuous O_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

3. During the period that the spent air stream from the new B-B Treater is being routed to the existing incinerator, the permittee shall calculate and record on a monthly basis, the SO_2 emission rate (in tons per month and total tons, to date) for the extended startup period. The calculated SO_2 emission rate shall be the emissions from the incinerator solely associated with the new B-B Treater. The SO2 emission rate for the spent air stream shall be determined as follows:

   a. Samples of the spent air stream shall be obtained on a monthly basis, and analyzed for SO2 content by appropriate methods approved by the Ohio EPA.

   b. The permittee shall monitor and record the spent air stream flow rate, each month, using a gas flow meter at the inlet of the incinerator.

   c. The permittee shall use the information in A.III.3.a and A.III.3.b to calculate the SO_2 emission rate (in tons per month and total tons, to date) for the extended startup period.

4. The permittee shall include the B-B Treater fugitive emissions and associated components in the current site fugitive leak detection and repair (LDAR) program. The LDAR program shall be conducted in accordance with the alternative monitoring plan submitted by the permittee. Applicable requirements are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.13 of this permit.

IV. Reporting Requirements

1. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration magnitude, reason (if known, for example, start-up, shutdown, or malfunction), and corrective actions taken (if any), of all instances of SO_2

values in excess of the applicable lbs/hr and ppm limitations. These reports shall also contain the total SO_2 emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous SO_2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

2. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous O_2 system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

3. The permittee shall provide a report detailing the SO_2 emissions during the extended startup period. This report shall be submitted within 30 days after the completion of the extended startup period.

V. Testing Requirements

1. Within 180 days following start-up of the emissions unit with the new tail gas incinerator, the permittee shall conduct certification tests of the continuous SO_2 monitoring system pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office.

Certification of the continuous SO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6.

2. Within 180 days following start-up of this emissions unit with the new tail gas incinerator, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 3. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous O_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 3.

3. Compliance with the emissions limitations in section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:

   a. Emission Limitation:

      0.14 lb of PE/hr, 0.61 ton of PE/yr

      Applicable Compliance Method:

      The permittee may demonstrate compliance with the hourly limitation by multiplying the appropriate particulate emission factor of 7.6 pounds per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), by the maximum fuel flow rate of 18,431 standard cubic foot/hr. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Methods 1 through 4, and 5 of 40 CFR Part 60, Appendix A.

      The annual emission limitation was derived by multiplying the hourly emission limitation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

b. Emission Limitation:

1.84 lbs of NOx/hr, 8.06 tons of NOx/yr

Applicable Compliance Method:

The permittee may demonstrate compliance with the hourly limitation by multiplying the appropriate NOx emission factor of 100 pounds per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), by the maximum fuel flow rate of 18,431 standard cubic foot/hr. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Methods 1 through 4, and 7 of 40 CFR Part 60, Appendix A.

The annual emission limitation was derived by multiplying the hourly emission limitation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

c. Emission Limitation:

1.88 lbs of CO/hr, 8.23 tons of CO/yr

Applicable Compliance Method:

The CO emission limitation was derived from a vendor guarantee of a maximum CO emission rate of 100 ppm. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in Methods 1 through 4, and 10 of 40 CFR Part 60, Appendix A.

The annual emission limitation was derived by multiplying the hourly emission limitation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

d. Emission Limitation:

0.10 lb of VOC/hr, 0.44 ton of VOC/yr

Applicable Compliance Method:

The permittee may demonstrate compliance with the hourly limitation by multiplying the appropriate VOC emission factor of 5.5 pounds per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), by the maximum fuel flow rate of 18,431 standard cubic foot/hr. If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4, and 18, 25, or 25A, as appropriate.

The annual emission limitation was derived by multiplying the hourly emission limitation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

e. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a six-minute average.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

f. Emission Limitation:

250 parts per million by volume (dry basis) of SO2 at 0% excess air

Applicable Compliance Method:

The permittee shall demonstrate compliance by the monitoring and record keeping in A.III.1 and A.III.2.

Compliance shall also be demonstrated by emission testing requirements contained in section A.V.1. for emissions unit P040 (see A.I.2.a).

g. Emission Limitation:

19.18 lbs of SO2/hr, 84.02 tons of SO2/yr

Applicable Compliance Method:

Compliance with the hourly limitation shall be demonstrated by emission testing requirements contained in section A.V.1. for emissions unit P040 (see A.I.2.a).

The annual emission limitation was derived by multiplying the hourly emission rate derived from the following equation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

h. Emission Limitation:

26.40 tons of SO2 during the extended startup period

Applicable Compliance Method:

Compliance with this mass emission limitation shall be demonstrated by the record keeping specified in condition A.III.3.

VI. Miscellaneous Requirements

1. The permittee shall maintain a quality assurance/quality control plan for the continuous SO_2 monitoring system designed to ensure continuous valid and representative readings of SO_2. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous SO_2 monitoring system must be kept on site and available for inspection during regular office hours.

2. The permittee shall maintain a quality assurance/quality control plan for the continuous O_2 monitoring system designed to ensure continuous valid and representative readings. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 system must be kept on site and available for inspection during regular office hours.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Sewers (P801)
Activity Description: Central, North, South Refinery Sewers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit: **Sewers (P801)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100216 (T009)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof storage tank with an internal floating roof and a capacity of 79,800 gallons ***(group 1 storage vessel)***	OAC rule 3745-21-09 (L)	See A.I.2.a, A.I.2.b, and A.III.1.
	40 CFR Part 60, Subpart Ka	See A.I.2.c.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.642(e)	See A.I.2.d.
	40 CFR 63.646	See A.I.2.d.
	Storage Tank Emission Reduction Partnership Program - 65 Federal Register 19891 (April 13, 2000)	See A.I.2.e and A.III.2.
	40 CFR Part 63, Subpart A	See A.I.2.f.

2. Additional Terms and Conditions

2.*a* The fixed roof storage tank shall be equipped with an internal floating roof.

2.*b* 40 CFR Part 63, Subpart CC regulations overlap with those of OAC rule 3745-21-09(L).

2.c After the compliance dates specified in paragraph (h) of this section a Group 1 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart Ka is required to only comply with the provisions of 40 CFR Part 63, Subpart CC.

2.d This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.*e* In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i. Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.f Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

2. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100085 (T010)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground storage tank with an internal floating roof and a capacity of 88,128 gallons ***(group 1 storage vessel)***	OAC rule 3745-21-09(L)	See A.I.2.a through A.I.2.d and A.III.1.
	40 CFR Part 60, Subpart Kb:	See A.I.2.h.
	40 CFR Part 61, Subpart FF	See A.I.2.e.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.647(a)	See A.I.2.f.
	40 CFR 63.654(a)	See A.I.2.g.
	40 CFR Part 63, Subpart A	See A.I.2.i.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open

when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.e As an alternative to the standards for tanks specified in §61.343 of this subpart, the permittee has elected to comply with the following:

(1) A fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1);

If the permittee elects to comply with the provisions of 40 CFR 61.351(b) then the permittee is exempt from the provisions of §61.343 of this subpart applicable to the same facilities.

2.f Except as provided in paragraph (b) of this section, each owner or operator of a Group 1 wastewater stream shall comply with the requirements of §§61.340 through 61.355 of 40 CFR Part 61, Subpart FF for each process wastewater stream that meets the definition in §63.641.

2.g Each owner or operator subject to the wastewater provisions in §63.647 shall comply with the record keeping and reporting provisions in §§61.356 and 61.357 of 40 CFR Part 61, Subpart FF unless they are complying with the wastewater provisions specified in paragraph (o)(2)(ii) of §63.640. There are no additional reporting and record keeping requirements for wastewater under this subpart unless a wastewater stream is included in an emissions average. Record keeping and reporting for emissions averages are specified in §63.653 and in paragraphs (f)(5) and (g)(8) of this section.

2.h Since the permittee has elected to comply with tank roof requirements as shown in section A.I.2.e for this emissions unit, this emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.i Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100084 (T011)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground storage tank with an internal floating roof with capacity of 88,128 gallons (group 1 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a through A.I.2.d and A.III.1.
	40 CFR Part 60, Subpart Kb	See A.I.2.h.
	40 CFR Part 61, Subpart FF	See A.I.2.e.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.647(a)	See A.I.2.f.
	40 CFR 63.654(a)	See A.I.2.g.
	40 CFR Part 63, Subpart A	See A.I.2.i.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.e As an alternative to the standards for tanks specified in §61.343 of this subpart, the permittee has elected to comply with the following:

(1) A fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1);

If the permittee elects to comply with the provisions of 40 CFR 61.351(b) then the permittee is exempt from the provisions of §61.343 of this subpart applicable to the same facilities.

2.f Except as provided in paragraph (b) of this section, each owner or operator of a Group 1 wastewater stream shall comply with the requirements of §§61.340 through 61.355 of 40 CFR Part 61, Subpart FF for each process wastewater stream that meets the definition in §63.641.

2.g Each owner or operator subject to the wastewater provisions in §63.647 shall comply with the record keeping and reporting provisions in §§61.356 and 61.357 of 40 CFR Part 61, Subpart FF unless they are complying with the wastewater provisions specified in paragraph (o)(2)(ii) of §63.640. There are no additional reporting and record keeping requirements for wastewater under this subpart unless a wastewater stream is included in an emissions average. Record keeping and reporting for emissions averages are specified in §63.653 and in paragraphs (f)(5) and (g)(8) of this section.

2.h Since the permittee has elected to comply with tank roof requirements as shown in section A.I.2.e for this emissions unit, this emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.i Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank;

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100096 (T017)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 1,381,844 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) ***(group 1 storage vessel)***	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100134 (T018)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, external floating roof storage tank with a capacity of 846,027 gallons (welded shell construction with mechanical shoe primary seal) ***(group 2 storage vessel)***	OAC rule 3745-21-09(Z)(3)(c)	exempt
		See A.I.2.a, A.II.1 and A.IV.1.
	40 CFR Part 63, Subpart CC***:***	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. Additional Terms and Conditions

2.a This emissions unit is exempt from the requirements of OAC rule 3745-21-09(Z)(1) and 3745-21-09(Z)(2) as long as the permittee does not store any petroleum liquid with a maximum true vapor pressure greater than or equal to 1.5 pounds per square inch absolute.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this external floating roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 1.5 pounds per square inch absolute.

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the external floating roof tank any petroleum liquid with a true vapor pressure which is greater than 1.5 pounds per square inch absolute, and such tank does not comply with the requirements of OAC rule 3745-21-09(Z)(1), the permittee shall so notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100135 (T019)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 846,027 gallons (welded shell construction with mechanical shoe primary seal) (group 2 storage vessel)	OAC rule 3745-21-09(Z)(3)(c)	exempt See A.I.2.a, A.II.1, and A.IV.1.
	40 CFR Part 63, Subpart CC***:***	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. Additional Terms and Conditions

2.a This emissions unit is exempt from the requirements of OAC rule 3745-21-09(Z)(1) and 3745-21-09(Z)(2) as long as the permittee does not store any petroleum liquid with a maximum true vapor pressure greater than or equal to 1.5 pounds per square inch absolute.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this external floating roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 1.5 pounds per square inch absolute.

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under 40 CFR 63.654(a) through (h) shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the external floating roof tank any petroleum liquid with a true vapor pressure which is greater than 1.5 pounds per square inch absolute, and such tank does not comply with the requirements of OAC rule 3745-21-09(Z)(1), the permittee shall so notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100201 (T020)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 2,284,273 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100202 (T021)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 2,284,273 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100203 (T022)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 2,284,273 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100204 (T023)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 424,482 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit**.**

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100205 (T024)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 484,703 gallons (riveted or bolted shell construction, mechanical shoe primary seal, metal plate wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100206 (T025)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 2,284,273 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100207 (T026)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 2,284,273 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.j and A.III.5.
	40 CFR Part 63, Subpart A	See A.I.2.k.

2. **Additional Terms and Conditions**

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.k Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

5. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100208 (T027)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 2,284,273 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.j and A.III.5.
	40 CFR Part 63, Subpart A	See A.I.2.k.

2. **Additional Terms and Conditions**

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.k Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

5. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100209 (T028)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 2,284,273 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.k.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100210 (T029)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 4,060,929 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100212 (T030)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 4,060,929 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.j and A.III.5.
	40 CFR Part 63, Subpart A	See A.I.2.k.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.k Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

5. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100213 (T031)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (3,412,308 gallons) (group 1 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a through A.I.2.d and A.III.1.
	40 CFR Part 63, Subpart CC	See A.I.2.e.
	40 CFR Part 63, Subpart G	See A.I.2.f.
	40 CFR Part 63, Subpart A	See A.I.2.g.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.e This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, Sate and Federally Enforceable Section A.12 of this permit.

2.f This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.g Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100214 (T032)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (3,412,308 gallons) (group 1 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a through A.I.2.d and A.III.1.
	40 CFR Part 63, Subpart CC	See A.1.2.e.
	40 CFR Part 63, Subpart G	See A.I.2.f.
	40 CFR Part 63, Subpart A	See A.I.2.g.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.e This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, Sate and Federally Enforceable Section A.12 of this permit.

2.f This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.g Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100215 (T033)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 3,412,308 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100220 (T034)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 3,412,308 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100222 (T035)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 3,412,308 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100226 (T036)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 4,060,929 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.j and A.III.5.
	40 CFR Part 63, Subpart A	See A.I.2.k.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on

February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.k Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

5. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

   a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

   b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

   c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

   d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

   e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100227 (T037)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 4,060,929 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100228 (T038)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 4,060,929 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.j and A.III.5.
	40 CFR Part 63, Subpart A	See A.I.2.k.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on

February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.k Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

5. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

   a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

   b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

   c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

   d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

   e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100231 (T039)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 3,412,308 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100233 (T040)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 3,412,308 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.j and A.III.5.
	40 CFR Part 63, Subpart A	See A.I.2.k.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on

February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.k Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

5. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

   a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

   b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

   c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

   d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

   e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100238 (T041)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof storage tank with a capacity of 4,060,929 gallons (group 1 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a through A.I.2.d and A.III.1.
	40 CFR Part 63, Subpart CC	See A.I.2.e.
	40 CFR Part 63, Subpart G	See A.I.2.f.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.g and A.III.2.
	40 CFR Part 63, Subpart A	See A.I.2.h.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.e This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.f This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.g In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.h Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

   a. the types of petroleum liquids stored in the tank; and

   b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

2. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100239 (T042)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 4,275,820 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100244 (T043)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 4,060,929 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.j and A.III.5.
	40 CFR Part 63, Subpart A	See A.I.2.k.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on

February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.k Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

5. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

   a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

   b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

   c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

   d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

   e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100245 (T044)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 4,060,929 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100248 (T045)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 4,060,929 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.j and A.III.5.
	40 CFR Part 63, Subpart A	See A.I.2.k.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on

February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.k Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

5. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

   a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

   b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

   c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

   d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

   e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100250 (T046)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 484,703 gallons (riveted or bolted shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100251 (T047)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, external floating roof storage tank with a capacity of 719,123 gallons (welded shell construction with mechanical shoe primary seal and rim-mounted, flexible wiper secondary seal) (group 2 storage vessel)	OAC rule 3745-21-09(Z)(3)(c)	exempt See A.I.2.a and A.II.1.
	40 CFR Part 63, Subpart CC***:***	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. Additional Terms and Conditions

2.a This emissions unit is exempt from the requirements of OAC rule 3745-21-09(Z)(1) and 3745-21-09(Z)(2) as long as the permittee does not store any petroleum liquid with a maximum true vapor pressure greater than or equal to 1.5 pounds per square inch absolute.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this external floating roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 1.5 pounds per square inch absolute.

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the external floating roof tank any petroleum liquid with a true vapor pressure which is greater than 1.5 pounds per square inch absolute, and such tank does not comply with the requirements of OAC rule 3745-21-09(Z)(1), the permittee shall so notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100327 (T048)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 4,541,305 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.j and A.III.5.
	40 CFR Part 63, Subpart A	See A.I.2.k.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.k Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

5. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100223 (T049)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 4,060,929 gallons (welded shell construction, mechanical shoe primary seal rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100229 (T053)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 3,412,308 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	none See A.II.1 and A.IV.1.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.a.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100230 (T054)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 3,412,308 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	none See A.II.1 and A.IV.1.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.a.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions
None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100232 (T055)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground fixed roof tank (2,820,090 gallons) (group 2 storage vessel)	OAC rule 3745-21-09 (L)	none See A.II.1 and A.IV.1.
	40 CFR Part 60, Subpart Ka	See A.I.2.b.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.a.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

2.b After the compliance date of August 18, 1998, a Group 2 storage vessel that is also subject to 40 CFR Part 60, Subpart Ka, but not the control requirements of Subpart Ka, is required to comply only with the requirements of 40 CFR Part 63, Subpart CC.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100235 (T057)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 3,412,308 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	none See A.II.1 and A.IV.1.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.a.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100236 (T058)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 3,412,308 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	none See A.II.1 and A.IV.1.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.a.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100246 (T059)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 4,060,929 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	none See A.II.1 and A.IV.1.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.a.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100247 (T060)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 4,060,929 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	none See A.II.1 and A.IV.1.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.a.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100249 (T061)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 4,060,929 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	none See A.II.1 and A.IV.1.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.a.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100252 (T062)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 533,173 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	none See A.II.1 and A.IV.1.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.a.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100263 (T064)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground fixed roof tank (2,284,273 gallons) (group 2 storage vessel)	OAC rule 3745-21-09 (L)	none See A.II.1 and A.IV.1.
	40 CFR Part 60, Subpart Ka	See A.I.2.b.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.a.

2. **Additional Terms and Conditions**

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

2.b After the compliance date of August 18, 1998, a Group 2 storage vessel that is also subject to 40 CFR Part 60, Subpart Ka, but not the control requirements of Subpart Ka, is required to comply only with the requirements of 40 CFR Part 63, Subpart CC.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years**.**

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100264 (T065)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 2,284,273 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	none See A.II.1 and A.IV.1.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.a.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100324 (T066)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 4,235,399 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	none See A.II.1 and A.IV.1.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.a.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100325 (T067)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 4,235,399 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	none See A.II.1 and A.IV.1.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.a.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100326 (T068)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 4,235,399 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	none See A.II.1 and A.IV.1.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.a.

2. Additional Terms and Conditions

2.a Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100025 (T070)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof storage tank with an internal floating roof and a capacity of 88,128 gallons (group 1 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a, A.I.2.~~c~~ b and A.III.1.
	40 CFR Part 60, Subpart Ka	See A.I.2.c.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.642(e)	See A.I.2.d.
	40 CFR 63.646	See A.I.2.d.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.e and A.III.2.
	40 CFR Part 63, Subpart A	See A.I.2.f.

2. Additional Terms and Conditions

2.*a* The fixed roof storage tank shall be equipped with an internal floating roof.

2.*b* 40 CFR Part 63, Subpart CC regulations overlap with those of OAC rule 3745-21-09(L).

2.c After the compliance dates specified in paragraph (h) of this section a Group 1 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart Ka is required to only comply with the provisions of 40 CFR Part 63, Subpart CC.

2.d This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.*e* In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i. Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.f Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

2. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100026 (T071)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof storage tank with an internal floating roof and a capacity of 177,194 gallons (group 1 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a, A.I.2.b and A.III.1.
	40 CFR Part 60, Subpart Ka	See A.I.2.c.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.642(e)	See A.I.2.d.
	40 CFR 63.646	See A.I.2.d.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.e and A.III.2.
	40 CFR Part 63, Subpart A	See A.I.2.f.

2. Additional Terms and Conditions

2.*a* The fixed roof storage tank shall be equipped with an internal floating roof.

2.*b* 40 CFR Part 63, Subpart CC regulations overlap with those of OAC rule 3745-21-09(L).

2.c After the compliance dates specified in paragraph (h) of this section a Group 1 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart Ka is required to only comply with the provisions of 40 CFR Part 63, Subpart CC.

2.d This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.*e* In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i. Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.f Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank;

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

2. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100028 (T072)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof storage tank with an internal floating roof and a capacity of 177,194 gallons (group 1 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a, A.I.2.b and A.III.1.
	40 CFR Part 60, Subpart Ka	See A.I.2.c.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.642(e)	See A.I.2.d.
	40 CFR 63.646	See A.I.2.d.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.e and A.III.2.
	40 CFR Part 63, Subpart A	See A.I.2.f.

2. Additional Terms and Conditions

2.*a* The fixed roof storage tank shall be equipped with an internal floating roof.

2.*b* 40 CFR Part 63, Subpart CC regulations overlap with those of OAC rule 3745-21-09(L).

2.c After the compliance dates specified in paragraph (h) of this section a Group 1 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart Ka is required to only comply with the provisions of 40 CFR Part 63, Subpart CC.

2.d This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.*e* In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i. Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.f Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

2. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100256 (T073)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof storage tank with an internal floating roof and a capacity of 230,307 gallons (group 1 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a, A.I.2.b and A.III.1.
	40 CFR Part 60, Subpart Ka	See A.I.2.c.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.642(e)	See A.I.2.d.
	40 CFR 63.646	See A.I.2.d.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.e and A.III.2.
	40 CFR Part 63, Subpart A	See A.I.2.f.

2. Additional Terms and Conditions

2.*a* The fixed roof storage tank shall be equipped with an internal floating roof.

2.*b* 40 CFR Part 63, Subpart CC regulations overlap with those of OAC rule 3745-21-09(L).

2.c After the compliance dates specified in paragraph (h) of this section a Group 1 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart Ka is required to only comply with the provisions of 40 CFR Part 63, Subpart CC.

2.d This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.*e* In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i. Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.f Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

2. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100253 (T074)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof storage tank with an internal floating roof (475,890 gallon capacity) (group 1 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a, A.I.2.b and A.III.1.
	40 CFR Part 60, Subpart Ka	See A.I.2.c.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.642(e)	See A.I.2.d.
	40 CFR 63.64	See A.I.2.d.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.e and A.III.2.
	40 CFR Part 63, Subpart A	See A.I.2.f.

2. Additional Terms and Conditions

2.*a* The fixed roof storage tank shall be equipped with an internal floating roof.

2.*b* 40 CFR Part 63, Subpart CC regulations overlap with those of OAC rule 3745-21-09(L).

2.c After the compliance dates specified in paragraph (h) of this section a Group 1 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart Ka is required to only comply with the provisions of 40 CFR Part 63, Subpart CC.

2.d This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.*e* In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i. Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.f Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

2. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100255 (T075)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof storage tank with an internal floating roof (475,890 gallon capacity)(group 1 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a, A.I.2.b and A.III.1.
	40 CFR Part 60, Subpart Ka	See A.I.2.c.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.642(e)	See A.I.2.d.
	40 CFR 63.646	See A.I.2.d.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.e and A.III.2.
	40 CFR Part 63, Subpart A	See A.I.2.f.

2. Additional Terms and Conditions

2.*a* The fixed roof storage tank shall be equipped with an internal floating roof.

2.*b* 40 CFR Part 63, Subpart CC regulations overlap with those of OAC rule 3745-21-09(L).

2.c After the compliance dates specified in paragraph (h) of this section a Group 1 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart Ka is required to only comply with the provisions of 40 CFR Part 63, Subpart CC.

2.d This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.*e* In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i. Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.f Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

2. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100219 (T076)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 2,820,090 gallons (group 2 storage vessel)	OAC rule 3745-31-05 (PTI No. 03-1102)	See A.I.2.a.
	OAC rule 3745-21-09(L)	See A.I.2.d.
	40 CFR Part 60, Subpart Ka	See A.I.2.b.
	40 CFR Part 63, Subpart CC:	See A.I.2.c and A.II.1.
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.e.

2. Additional Terms and Conditions

2.*a* No limits, pursuant to OAC rule 3745-31-05, were established in PTI No. 03-1102 for this emissions unit.

2.b This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Ka . Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.6 of this permit.

2.c After the compliance dates specified in paragraph (h) of this section a Group 2 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart Ka, but not to the control requirements of 40 CFR part 60, subpart Ka, is required to comply only with the provisions of 40 CFR Part 63, Subpart CC.

2.d The requirements in OAC rule 3745-21-09(L) are less stringent than the requirements in 40 CFR Part 63, Subpart CC.

2.e Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than 1.51 pounds per square inch absolute.

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100076 (77A) (T078)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (56,402 gallons) (group 1 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a through A.I.2.d and A.III.1.
	40 CFR Part 60, Subpart Kb	See A.I.2.e.
	40 CFR Part 61, Subpart FF	See A.I.2.f.
	40 CFR Part 63, Subpart CC:	See A.I.2.g.
	40 CFR 63.647(a)	See A.I.2.h.
	40 CFR 63.654(a)	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open

when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.e This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.f As an alternative to the standards for tanks specified in §61.343 of this subpart, the permittee has elected to comply with the following:

(1) A fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1);

If the permittee elects to comply with the provisions of 40 CFR 61.351(b) then the permittee is exempt from the provisions of §61.343 of this subpart applicable to the same facilities.

2.g After the compliance dates specified in paragraph (h) 40 CFR 63.640, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of 40 CFR 63.640.

2.h Except as provided in paragraph (b) of this section, each owner or operator of a Group 1 wastewater stream shall comply with the requirements of §§61.340 through 61.355 fo 40 CFR part 61, supart FF for each process wastewater stream that meets the definition in §63.641.

2.i Each owner or operator subject to the wastewater provisions in §63.647 shall comply with the record keeping and reporting provisions in §§61.356 and 61.357 of 40 CFR Part 61, Subpart FF unless they are complying with the wastewater provisions specified in paragraph (o)(2)(ii) of §63.640. There are no additional reporting and record keeping requirements for wastewater under this subpart unless a wastewater stream is included in an emissions average. Record keeping and reporting for emissions averages are specified in §63.653 and in paragraphs (f)(5) and (g)(8) of this section.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100351 (T080)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (1,084,042 gallons) (group 1 storage vessel)	OAC rule 3745-31-05 (PTI No. 03-1822)	See A.I.2.e.
	OAC rule 3745-21-09 (L)	See A.I.2.a through A.I.2.d and A.III.1.
	40 CFR Part 60, Subpart Kb	See A.I.2.f.
	40 CFR Part 63, Subpart CC	See A.I.2.g.
	40 CFR Part 63, Subpart A	See A.I.2.h.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.*e* No limits, pursuant to OAC rule 3745-31-05, were established in PTI No. 03-1822 for this emissions unit.

2.f This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.g After the compliance dates specified in paragraph (h) of this section, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of this section.

2.h Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100352 (T081)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (1,084,042 gallons) (group 1 storage vessel)	OAC rule 3745-31-05 (PTI No. 03-1822)	See A.I.2.e.
	OAC rule 3745-21-09 (L)	See A.I.2.a through A.I.2.d and A.III.1.
	40 CFR Part 60, Subpart Kb	See A.I.2.f.
	40 CFR Part 63, Subpart CC	See A.I.2.g.
	40 CFR Part 63, Subpart A	See A.I.2.h.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.*e* No limits, pursuant to OAC rule 3745-31-05, were established in PTI 03-1822 for this emissions unit.

2.f This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.g After the compliance dates specified in paragraph (h) of this section, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of this section.

2.h Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 164559 (T083)
Activity Description: Tank 164559

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 203,258 gallons (group 2 storage vessel)	OAC rule 3745-21-09(L)	See A.I.2.c.
	40 CFR Part 60, Subpart Ka	See A.I.2.a.
	40 CFR Part 63, Subpart CC*:*	See A.I.2.b and A.II.1.
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.d.

2. Additional Terms and Conditions

2.a This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Ka . Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.6 of this permit.

2.b After the compliance dates specified in paragraph (h) of this section a Group 2 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart Ka, but not to the

control requirements of 40 CFR part 60, subpart Ka, is required to comply only with the provisions of 40 CFR Part 63, Subpart CC.

2.c The requirements in OAC rule 3745-21-09(L) are less stringent than the requirements in 40 CFR Part 63, Subpart CC.

2.d Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than 1.51 pounds per square inch absolute.

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100166 (T084)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (452,096 gallons) (group 1 storage vessel)	OAC rule 3745-21-09(L)	See A.I.2.a through A.I.2.d and A.III.1.
	40 CFR Part 60, Subpart Ka	See A.I.2.e.
	40 CFR Part 61, Subpart Y	See A.I.2.f.
	40 CFR Part 63, Subpart CC	See A.I.2.g.
	40 CFR Part 63, Subpart G	See A.I.2.h.
	40 CFR Part 63, Subpart A	See A.I.2.i.

2. Additional Terms and Conditions

2.a The fixed roof storage tank shall be equipped with an internal floating roof.

2.b The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.c All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.*d* 40 CFR Part 63, Subpart CC regulations overlap with those of OAC rule 3745-21-09(L).

2.e The requirements of 40 CFR Part 60, Subpart Ka are less stringent than the requirements of 40 CFR Part 61, Subpart Y.

2.f This emissions unit is subject to NESHAPS standards in 40 CFR Part 61, Subpart Y. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.8. of this permit. Since 40 CFR Part 61, Subpart Y is more stringent than 40 CFR part 60, subpart Ka, the permittee is only required to comply with 40 CFR Part 61, Subpart Y.

2.g This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.h This emissions unit is subject to NESHAPS standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.8. of this permit.

2.i Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100167 (T085)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (452,096 gallons) (group 1 storage vessel)	OAC rule 3745-21-09(L)	See A.I.2.a through A.I.2.c, A.I.2.d and A.III.1.
	40 CFR Part 60, Subpart Ka	See A.I.2.e.
	40 CFR Part 61, Subpart Y	See A.I.2.f.
	40 CFR Part 63, Subpart CC	See A.I.2.g.
	40 CFR Part 63, Subpart G	See A.I.2.h.
	40 CFR Part 63, Subpart A	See A.I.2.i.

2. Additional Terms and Conditions

2.a The fixed roof storage tank shall be equipped with an internal floating roof.

2.b The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.c All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.*d* 40 CFR Part 63, Subpart CC regulations overlap with those of OAC rule 3745-21-09(L).

2.e The requirements of 40 CFR Part 60, Subpart Ka are less stringent than the requirements of 40 CFR Part 61, Subpart Y.

2.f This emissions unit is subject to NESHAPS standards in 40 CFR Part 61, Subpart Y. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.8. of this permit. Since 40 CFR Part 61, Subpart Y is more stringent than 40 CFR part 60, subpart Ka, the permittee is only required to comply with 40 CFR Part 61, Subpart Y.

2.g This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.h This emissions unit is subject to NESHAPS standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.8. of this permit.

2.i Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100168 (T086)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (1,955,262 gallons) (group 1 storage vessel)	OAC rule 3745-21-09(L)	See A.I.2.a through A.I.2.d ~~A.I.2.j~~ and A.III.1.
	40 CFR Part 60, Subpart Ka	See A.I.2.e.
	40 CFR Part 61, Subpart Y	See A.I.2.f.
	40 CFR Part 63, Subpart CC	See A.I.2.g.
	40 CFR Part 63, Subpart G	See A.I.2.h.
	40 CFR Part 63, Subpart A	See A.I.2.i.

2. **Additional Terms and Conditions**

2.a The fixed roof storage tank shall be equipped with an internal floating roof.

2.b The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.c All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.*d* 40 CFR Part 63, Subpart CC regulations overlap with those of OAC rule 3745-21-09(L).

2.e The requirements of 40 CFR Part 60, Subpart Ka are less stringent than the requirements of 40 CFR Part 61, Subpart Y.

2.f This emissions unit is subject to NESHAPS standards in 40 CFR Part 61, Subpart Y. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.8. of this permit. Since 40 CFR Part 61, Subpart Y is more stringent than 40 CFR part 60, subpart Ka, the permittee is only required to comply with 40 CFR Part 61, Subpart Y.

2.g This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.h This emissions unit is subject to NESHAPS standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.8. of this permit.

2.i Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100165 (T087)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (3,696,667 gallons) (group 1 storage vessel)	OAC rule 3745-21-09(L)	See A.I.2.a through A.I.2.c, A.I.2.d and A.III.1.
	40 CFR Part 60, Subpart Ka	See A.I.2.e.
	40 CFR Part 61, Subpart Y	See A.I.2.f.
	40 CFR Part 63, Subpart CC	See A.I.2.g.
	40 CFR Part 63, Subpart G	See A.I.2.h.
	40 CFR Part 63, Subpart A	See A.I.2.i.

2. Additional Terms and Conditions

2.a The fixed roof storage tank shall be equipped with an internal floating roof.

2.b The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.c All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.*d* 40 CFR Part 63, Subpart CC regulations overlap with those of OAC rule 3745-21-09(L).

2.e The requirements of 40 CFR Part 60, Subpart Ka are less stringent than the requirements of 40 CFR Part 61, Subpart Y.

2.f This emissions unit is subject to NESHAPS standards in 40 CFR Part 61, Subpart Y. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.8. of this permit. Since 40 CFR Part 61, Subpart Y is more stringent than 40 CFR part 60, subpart Ka, the permittee is only required to comply with 40 CFR Part 61, Subpart Y.

2.g This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.h This emissions unit is subject to NESHAPS standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.8. of this permit.

2.i Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100169 (T088)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground external floating roof storage tank with a capacity of 1,479,936 gallons; welded shell construction, with a mechanical shoe primary seal, and a rim-mounted, flexible wiper secondary seal (group 1 storage vessel)	OAC rule 3745-21-09(Z)	See A.I.2.a through A.I.2.g and A.III.1 through A.III.4 and A.IV.1.
	40 CFR Part 60, Subpart Ka	See A.I.2.h.
	40 CFR Part 63, Subpart CC	See A.I.2.i.
	40 CFR Part 63, Subpart G	See A.I.2.j.
	40 CFR Part 63, Subpart A	See A.I.2.k.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h After the compliance dates specified in paragraph (h) of 40 CFR 63.640, a Group 1 storage vessel that is also subject to the provisions of 40 CFR part 60, subparts K or Ka is required to only comply with the provisions of 40 CFR Part 63, Subpart CC.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.j This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.k Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100079 (T090)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (56,402 gallons) (group 1 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a through A.I.2.d.
	40 CFR Part 60, Subpart Kb	See A.I.2.e.
	40 CFR Part 61, Subpart FF	See A.I.2.h.
	40 CFR Part 63, Subpart CC:	See A.I.2.f.
	40 CFR 63.647(a)	See A.I.2.g.
	40 CFR 63.654(a)	See A.I.2.i.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.j and A.III.1.
	40 CFR Part 63, Subpart A	See A.I.2.k.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia. Since the maximum true vapor pressure of material stored in this storage tank is greater than 1.52 psia, compliance with OAC rule 3745-21-09(L) is demonstrated by maintaining an internal floating roof. Also, by maintaining the

maximum true vapor pressure so as not to exceed 11.1 psia, additional control requirements in 40 CFR 60.112b(b) are not applicable.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.e This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.f After the compliance dates specified in paragraph (h) of 40 CFR 63.640, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of 40 CFR.63.640.

2.g Except as provided in paragraph (b) of this section, each owner or operator of a Group 1 wastewater stream shall comply with the requirements of §§61.340 through 61.355 of 40 CFR Part 61, Subpart FF for each process wastewater stream that meets the definition in §63.641.

2.h As an alternative to the standards for tanks specified in §61.343 of this subpart, the permittee has elected to comply with the following:

(1) A fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1);

If the permittee elects to comply with the provisions of 40 CFR 61.351(b) then the permittee is exempt from the provisions of §61.343 of this subpart applicable to the same facilities.

2.i Each owner or operator subject to the wastewater provisions in §63.647 shall comply with the record keeping and reporting provisions in §§61.356 and 61.357 of 40 CFR Part 61, Subpart FF unless they are complying with the wastewater provisions specified in paragraph (o)(2)(ii) of §63.640. There are no additional reporting and record keeping requirements for wastewater under this subpart unless a wastewater stream is included in an emissions average. Record keeping and reporting for emissions averages are specified in §63.653 and in paragraphs (f)(5) and (g)(8) of this section.

2.*j* In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i. Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.k Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

   a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

   b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

   c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

   d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

   e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100078 (T091)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (56,402 gallons) (group 1 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a through A.I.2.d.
	40 CFR Part 60, Subpart Kb	See A.I.2.e.
	40 CFR Part 61, Subpart FF	See A.I.2.h.
	40 CFR Part 63, Subpart CC:	See A.I.2.f.
	40 CFR 63.647(a)	See A.I.2.g.
	40 CFR 63.654(a)	See A.I.2.i.
	Storage Tank Emission Reduction Partnership Program 65 Federal Register 19891 (April 13, 2000)	See A.I.2.j and A.III.1.
	40 CFR Part 63, Subpart A	See A.I.2.k.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia. Since the maximum true vapor pressure of material stored in this storage tank is greater than 1.52 psia, compliance with OAC rule 3745-21-09(L) is demonstrated by maintaining an internal floating roof. Also, by maintaining the

maximum true vapor pressure so as not to exceed 11.1 psia, additional control requirements in 40 CFR 60.112b(b) are not applicable.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.e This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.f After the compliance dates specified in paragraph (h) of this section, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of this section.

2.g Except as provided in paragraph (b) of this section, each owner or operator of a Group 1 wastewater stream shall comply with the requirements of §§61.340 through 61.355 of 40 CFR Part 61, Subpart FF for each process wastewater stream that meets the definition in §63.641.

2.h As an alternative to the standards for tanks specified in §61.343 of this subpart, the permittee has elected to comply with the following:

(1) A fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1);

If the permittee elects to comply with the provisions of 40 CFR 61.351(b) then the permittee is exempt from the provisions of §61.343 of this subpart applicable to the same facilities.

2.i Each owner or operator subject to the wastewater provisions in §63.647 shall comply with the record keeping and reporting provisions in §§61.356 and 61.357 of 40 CFR Part 61, Subpart FF unless they are complying with the wastewater provisions specified in paragraph (o)(2)(ii) of §63.640. There are no additional reporting and record keeping requirements for wastewater under this subpart unless a wastewater stream is included in an emissions average. Record keeping and reporting for emissions averages are specified in §63.653 and in paragraphs (f)(5) and (g)(8) of this section.

2.j In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement executed by the United States Environmental Protection Agency (USEPA) on February 2, 2001, the permittee installed a pole sleeve system on the slotted guidepole of this emissions unit on December 21, 2001.

The pole sleeve system shall meet the following requirements:

i. Each opening through the deck of the floating roof for a slotted guidepole shall be equipped with a deck cover, a pole wiper and a pole sleeve.

ii. The deck cover shall be equipped with a gasket between the cover and the deck.

iii. The sleeve shall extend into the stored liquid.

2.k ***Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.***

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. In accordance with the Storage Tank Emission Reduction Partnership Program (STERPP) agreement, the permittee shall meet the following:

   a. The sliding cover shall be in place over the slotted-guidepole opening through the floating roof at all times except when the sliding cover must be removed for access.

   b. If the control technology used includes a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

   c. Visually inspect the deck fitting for the slotted guidepole at least once every 10 years and each time the vessel is emptied and degassed.

   d. If the slotted guidepole deck fitting or control devices have defects, or if a gap of more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.

   e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are out of service.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100112 (T092)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 169,205 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a.
	40 CFR Part 63, Subpart CC:	See A.II.1 and A.IV.1.
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. Additional Terms and Conditions

2.a The requirements in OAC rule 3745-21-09(L) are less stringent than the requirements in 40 CFR Part 63, Subpart CC.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100060 (T093)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 1,504,048 gallons	OAC rule 3745-21-09 (L)	See A.I.2.a.
	40 CFR Part 63, Subpart CC:	See A.II.1 and A.IV.1.
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. Additional Terms and Conditions

2.a The requirements in OAC rule 3745-21-09(L) are less stringent than the requirements in 40 CFR Part 63, Subpart CC.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100113 (T097)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 169,205 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a.
	40 CFR Part 63, Subpart CC:	See A.II.1 and A.IV.1.
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. Additional Terms and Conditions

2.a The requirements in OAC rule 3745-21-09(L) are less stringent than the requirements in 40 CFR Part 63, Subpart CC.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100114 (T100)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 163,918 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a.
	40 CFR Part 63, Subpart CC:	See A.II.1 and A.IV.1.
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. Additional Terms and Conditions

2.a The requirements in OAC rule 3745-21-09(L) are less stringent than the requirements in 40 CFR Part 63, Subpart CC.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100111 (T112)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 616,754 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a.
	40 CFR Part 63, Subpart CC:	See A.II.1 and A.IV.1.
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. Additional Terms and Conditions

2.a The requirements in OAC rule 3745-21-09(L) are less stringent than the requirements in 40 CFR Part 63, Subpart CC.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100391 (T121)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (1,381,844 gallons) (group 1 storage vessel)	OAC rule 3745-31-05 (PTI No. 03-7232)	11.02 tons of volatile organic compounds (VOC)/yr See A.V.1.
	OAC rule 3745-21-09 (L)	See A.I.2.a through A.I.2.d and A.III.1.
	40 CFR Part 60, Subpart Kb	See A.I.2.e.
	40 CFR Part 63, Subpart CC	See A.I.2.f.
	40 CFR Part 63, Subpart A	See A.I.2.g.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.e This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.f After the compliance dates specified in paragraph (h) of 40 CFR 63.640, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of 40 CFR 63.640.

2.g Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

None

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation:

11.02 tons of VOC/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100022 (T123)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 1,381,844 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a.
	40 CFR Part 63, Subpart CC:	See A.II.1 and A.IV.1.
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. Additional Terms and Conditions

2.a The requirements in OAC rule 3745-21-09(L) are less stringent than the requirements in 40 CFR Part 63, Subpart CC.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100057 (T161)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 4,060,929 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a.
	40 CFR Part 63, Subpart CC:	See A.II.1 and A.IV.1.
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. Additional Terms and Conditions

2.a The requirements in OAC rule 3745-21-09(L) are less stringent than the requirements in 40 CFR Part 63, Subpart CC.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100298 (T164)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 4,060,929 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a.
	40 CFR Part 63, Subpart CC:	See A.II.1 and A.IV.1.
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. Additional Terms and Conditions

2.a The requirements in OAC rule 3745-21-09(L) are less stringent than the requirements in 40 CFR Part 63, Subpart CC.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100458 (T177)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 705,022 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a.
	40 CFR Part 63, Subpart CC:	See A.II.1 and A.IV.1.
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. Additional Terms and Conditions

2.a The requirements in OAC rule 3745-21-09(L) are less stringent than the requirements in 40 CFR Part 63, Subpart CC.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100459 (T178)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 705,022 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a.
	40 CFR Part 63, Subpart CC:	See A.II.1 and A.IV.1.
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. Additional Terms and Conditions

2.a The requirements in OAC rule 3745-21-09(L) are less stringent than the requirements in 40 CFR Part 63, Subpart CC.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100044 (T190)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (230,331 gallons) (group 1 storage vessel)	OAC rule 3745-31-05 (PTI No. 03-5614)	0.67 lb of volatile organic compounds (VOC)/hr and 2.93 tons of VOC/yr See A.III.2, A.V.1.a and A.V.1.b. 0.04 lb of benzene/hr and 0.18 ton of benzene/yr See A.V.1.c and A.V.1.d.
	OAC rule 3745-21-09 (L)	See A.I.2.a through A.I.2.d and A.III.1.
	40 CFR Part 60, Subpart Kb	See A.I.2.e.
	40 CFR Part 63, Subpart CC	See A.I.2.f.
	40 CFR Part 63, Subpart A	See A.I.2.g.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.e This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.f After the compliance dates specified in paragraph (h) of this section, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of this section.

2.g Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

2. The permittee shall maintain monthly records of the amount of (gallons per month and total gallons, to date for the calendar year) material throughput for this emissions unit.

IV. Reporting Requirements

None

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.67 lb of VOC/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program.

1.b Emission Limitation:

2.93 tons of VOC/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program.

1.c Emission Limitation:

0.04 lb of benzene/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program.

1.d Emission Limitation:

0.18 ton of benzene/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100172 (T191)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (2,284,273 gallons) (group 1 storage vessel)	OAC rule 3745-31-05(A)(3) (PTI No. 03-13794)	5.19 tons of volatile organic compounds (VOC)/yr See A.III.1.c and A.V.1.
	OAC rule 3745-21-09 (L)	See A.I.2.a through A.I.2.d and A.III.1.a through A.III.1.b.
	40 CFR Part 60, Subpart Kb	See A.I.2.e.
	40 CFR Part 61, Subpart FF	See A.I.2.f.
	40 CFR Part 63, Subpart CC:	See A.I.2.g.
	40 CFR 63.647(a)	See A.I.2.h.
	40 CFR 63.654(a)	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.e This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.f As an alternative to the standards for tanks specified in §61.343 of this subpart, the permittee has elected to comply with the following:

(1) A fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1);

If the permittee elects to comply with the provisions of 40 CFR 61.351(b) then the permittee is exempt from the provisions of §61.343 of this subpart applicable to the same facilities.

2.g After the compliance dates specified in paragraph (h) of 40 CFR 63.640, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of 40 CFR 63.640.

2.h Except as provided in paragraph (b) of this section, each owner or operator of a Group 1 wastewater stream shall comply with the requirements of §§61.340 through 61.355 of 40 CFR Part 61, Subpart FF for each process wastewater stream that meets the definition in §63.641.

2.i Each owner or operator subject to the wastewater provisions in §63.647 shall comply with the record keeping and reporting provisions in §§61.356 and 61.357 of 40 CFR Part 61, Subpart FF unless they are complying with the wastewater provisions specified in paragraph (o)(2)(ii) of §63.640. There are no additional reporting and record keeping requirements for wastewater under this subpart unless a wastewater stream is included in an emissions average. Record keeping and reporting for emissions averages are specified in §63.653 and in paragraphs (f)(5) and (g)(8) of this section.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

1.c The annual throughput of any petroleum liquid stored in the tank.

IV. Reporting Requirements

None

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

5.19 tons of VOC/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by U.S. EPA Tanks 4.0 program.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100173 (T192)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (2,284,273 gallons) (group 1 storage vessel)	OAC rule 3745-31-05(A)(3) (PTI No. 03-13794)	5.19 tons of volatile organic compounds (VOC)/yr See A.III.1.c and A.V.1.
	OAC rule 3745-21-09 (L)	See A.I.2.a through A.I.2.d and A.III.1.a and A.III.1.b.
	40 CFR Part 60, Subpart Kb	See A.I.2.e.
	40 CFR Part 61, Subpart FF	See A.I.2.f.
	40 CFR Part 63, Subpart CC:	See A.I.2.g.
	40 CFR 63.647(a)	See A.I.2.h.
	40 CFR 63.654(a)	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.e This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.f As an alternative to the standards for tanks specified in §61.343 of this subpart, the permittee has elected to comply with the following:

(1) A fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1);

If the permittee elects to comply with the provisions of 40 CFR 61.351(b) then the permittee is exempt from the provisions of §61.343 of this subpart applicable to the same facilities.

2.g After the compliance dates specified in paragraph (h) of 40 CFR 63.640, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of 40 CFR.63.640.

2.h Except as provided in paragraph (b) of this section, each owner or operator of a Group 1 wastewater stream shall comply with the requirements of §§61.340 through 61.355 of 40 CFR Part 61, Subpart FF for each process wastewater stream that meets the definition in §63.641.

2.i Each owner or operator subject to the wastewater provisions in §63.647 shall comply with the record keeping and reporting provisions in §§61.356 and 61.357 of 40 CFR Part 61, Subpart FF unless they are complying with the wastewater provisions specified in paragraph (o)(2)(ii) of §63.640. There are no additional reporting and record keeping requirements for wastewater under this subpart unless a wastewater stream is included in an emissions average. Record keeping and reporting for emissions averages are specified in §63.653 and in paragraphs (f)(5) and (g)(8) of this section.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

1.c The annual throughput of any petroleum liquid stored in the tank.

IV. Reporting Requirements

None

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

5.19 tons of VOC/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by U.S. EPA Tanks 4.0 program.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100460 (T195)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 338,411 gallons (group 2 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a.
	40 CFR Part 63, Subpart CC:	See A.II.1 and A.IV.1.
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. Additional Terms and Conditions

2.a The requirements in OAC rule 3745-21-09(L) are less stringent than the requirements in 40 CFR Part 63, Subpart CC.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 10.4 kPa (1.51 psia).

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 1.51 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100006 (T196)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (1,265,938 gallons) (group 1 storage vessel)	OAC rule 3745-31-05 (PTI No. 03-13742)	3.44 tons of volatile organic compounds (VOC)/yr See A.II.1, A.III.2, A.IV.1, and A.V.1.
	OAC rule 3745-21-09 (L)	See A.I.2.a through A.I.2.d and A.III.1.
	40 CFR Part 60, Subpart Kb	See A.I.2.e.
	40 CFR Part 63, Subpart CC	See A.I.2.f.
	40 CFR Part 63, Subpart A	See A.I.2.g.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.e This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.f This emissions unit is a group 1 storage vessel (as defined in 40 CFR 60.641) that is part of an existing source and is also subject to the provisions of 40 CFR Part 60, Subpart Kb. In accordance with 40 CFR 60.640(n)(1), this emissions unit is required to comply only with the requirements of 40 CFR Part 60, Subpart Kb.

2.g Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not exceed an annual material throughput rate of 74,994,026 gallons.

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

2. The permittee shall maintain monthly records of the amount of (gallons per month and total gallons, to date for the calendar year) material throughput for this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit annual deviation (excursion) reports that identify any and all exceedances of the annual material throughput limitation, as well as the corrective actions taken to achieve compliance. If no deviations occurred during a calendar year, the permittee shall submit an annual report which states that no deviations occurred during that year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation:

3.44 tons of VOC/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 74,994,026 gallons.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100005 (T197)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground fixed roof tank (3,828,272 gallons) (group 2 storage vessel)	OAC rule 3745-31-05(A)(3) (PTI No. 03-6335)	25.2 tons of volatile organic compounds (VOC)/yr
		See A.V.1.
	OAC rule 3745-21-09 (L)	none
		See A.III.1.a, A.III.1.b and A.IV.1.
	40 CFR Part 60, Subpart Kb	See A.I.2.a and A.II.1.
	40 CFR Part 63, Subpart CC	See A.I.2.b and A.I.2.c.
	40 CFR Part 63, Subpart A	See A.I.2.d.

2. Additional Terms and Conditions

2.a This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.b This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.c After the compliance dates specified in paragraph (h) of 40 CFR 63.640, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of 40 CFR 63.640.

2.d Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 5.2 kPa (0.75 psia).

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

   a. the types of petroleum liquids stored in the tank; and

   b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 0.75 pounds per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

1. Compliance with the emission limitation in section A.I. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation:

25.2 tons of VOC/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100024 (T198)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground fixed roof tank (121,176 gallons) (group 2 storage vessel)	OAC rule 3745-31-05(A) (PTI No. 03-13794)	5.66 tons of volatile organic compounds (VOC)/yr See A.III.1.c and A.V.1.
	OAC rule 3745-21-09 (L)	none See A.III.1.a, A.III.1.b and A.IV.1.
	40 CFR Part 60, Subpart Kb	See A.I.2.a and A.II.1.
	40 CFR Part 63, Subpart CC	See A.I.2.b.
	40 CFR Part 63, Subpart A	See A.I.2.c.

2. Additional Terms and Conditions

2.a This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.b After the compliance dates specified in paragraph (h) of 40 CFR 63.640, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the

provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of 40 CFR 63.640.

2.c Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 5.2 kPa (0.75 psia).

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

   a. the types of petroleum liquids stored in the tank; and

   b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid.

   c. The annual throughput of any petroleum liquid stored in the tank.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 0.75 pound per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation:

5.66 tons of VOC/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 164788 (T200)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof storage tank with a capacity of 18,213 gallons (group 2 storage vessel)	OAC rule 3745-21-09(L)(2)(a)	exempt See A.I.2.a.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. Additional Terms and Conditions

2.a This emissions unit is exempt from the requirements of OAC rule 3745-21-09(L)(1) because it is a fixed roof storage tank with a capacity less than 40,000 gallons.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100038 (T201)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground external floating roof storage tank with a capacity of 8,000,000 gallons, concrete shell construction, a mechanical shoe primary seal, and a rim-mounted secondary seal (group 1 storage vessel)	OAC rule 3745-31-05(A) (PTI No. 03-13794)	52.48 tons of volatile organic compounds (VOC)/yr See A.III.4.c and A.V.1.
	OAC rule 3745-21-09(Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.3, A.III.4.a, A.III.4.b, and A.IV.1.
	40 CFR Part 60, Subpart Kb	See A.I.2.h and A.II.1.
	40 CFR Part 63, Subpart CC	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any external floating roof storage tank equipped with either a 1) liquid-mounted primary seal and rim-mounted secondary seal; or a 2) mechanical shoe primary seal and a rim-mounted secondary seal; or a 3) mechanical shoe primary seal and a shoe-mounted, secondary seal, provided the shoe-mounted secondary seal was installed prior to 1/10/81; or a 4) vapor-mounted primary seal and a rim-mounted secondary seal; or a 5) flexible wiper primary seal and a rim-mounted secondary seal; shall meet the following requirements:

i. there shall be no visible holes, tears, or other openings in the seal or seal fabric;

ii. for the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter (equivalent of 10.0 square inches for every 3.14 linear feet of tank circumference); and

iii. for the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter (equivalent of 1.0 square inch for every 3.14 linear feet of tank circumference).

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains, and slotted gauging/sampling wells shall be equipped with:

i. a cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use; and

ii. a projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open only at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.i After the compliance dates specified in paragraph (h) of 40 CFR 63.640, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the

requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of 40 CFR 63.640.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this external floating roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than 76.6 kPa (11.11 psia).

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 60, Subpart Kb, which are equivalent to or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 60, Subpart Kb, which are equivalent to or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the types of petroleum liquids stored in the tank;

   b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute; and

   c. the annual throughput of any petroleum liquid stored in the tank.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

52.48 tons of VOC/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100037 (T202)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof storage tank with a capacity of 9,996 gallons, controlled by a thermal oxidizer (group 1 storage vessel)	OAC rule 3745-31-05 (PTI 03-7545)	less than 0.1 lb of volatile organic compounds (VOC)/hr See A.V.1.
	OAC rule 3745-21-09(L)	exempt See A.I.2.a.
	40 CFR Part 60, Subpart Kb	exempt See A.I.2.b.
	40 CFR Part 63, Subpart CC	See A.I.2.e, A.III.1 and A.IV.1.
	40 CFR Part 61, Subpart FF	See A.I.2.c.
	40 CFR Part 63, Subpart A	See A.I.2.f.

2. Additional Terms and Conditions

2.*a* This emissions unit is exempt from the requirements of OAC rule 3745-21-09(L)(1), since it is a fixed roof tank with a capacity less than 40,000 gallons. The requirements of OAC rule 3745-21-09(L)(3) and 3745-21-09(L)(4) are also not applicable since the tank is exempted under OAC rule 3745-21-09(L)(2).

2.*b* This emissions unit is exempt from the requirements of 40 CFR Part 60, Subpart Kb, since the tank capacity is less than 75 cubic meters (19,815 gallons).

2.c This emissions unit is subject to NESHAPS standards in 40 CFR Part 61, Subpart FF. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.9 of this permit.

2.*d* This emissions unit is controlled by the thermal oxidizer which also controls emissions unit P025. Therefore, additional terms and conditions applicable to operation of the thermal oxidizer are shown in the terms and conditions for emissions unit P025.

2.*e* [40 CFR 63.647(a)]
Each permittee of a Group 1 wastewater stream shall comply with the requirements of 40 CFR 61.340 through 61.355 of 40 CFR Part 61, Subpart FF for each process wastewater stream that meets the definition in 40 CFR 63.641.

2.f Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. [40 CFR 63.654(a)]
Each permittee subject to the wastewater provisions in 40 CFR 63.647 shall comply with the record keeping provisions in 40 CFR 61.356 of 40 CFR Part 61, Subpart FF. There are no additional record keeping requirements for wastewater under this subpart.

IV. Reporting Requirements

1. [40 CFR 63.654(a)]
Each permittee subject to the wastewater provisions in 40 CFR 63.647 shall comply with the reporting provisions in 40 CFR 61.357 of 40 CFR Part 61, Subpart FF. There are no additional reporting requirements for wastewater under this subpart.

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

less than 0.1 lb of VOC/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program, and by using the VOC control efficiency from the most recent compliance testing of the thermal oxidizer.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100036 (T203)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof storage tank with a capacity of 14,500 gallons, controlled by a thermal oxidizer (group 1 storage vessel)	OAC rule 3745-31-05 (PTI 03-7545)	less than 0.1 lb of volatile organic compounds (VOC)/hr See A.V.1.
	OAC rule 3745-21-09(L)	exempt See A.I.2.a..
	40 CFR Part 60, Subpart Kb	exempt See A.I.2.b.
	40 CFR Part 63, Subpart CC	See A.I.2.e, A.III.1 and A.IV.1.
	40 CFR Part 61, Subpart FF	See A.I.2.c.
	40 CFR Part 63, Subpart A	See A.I.2.f.

2. Additional Terms and Conditions

2.*a* This emissions unit is exempt from the requirements of OAC rule 3745-21-09(L)(1), since it is a fixed roof tank with a capacity less than 40,000 gallons. The requirements of OAC rule 3745-21-09(L)(3) and 3745-21-09(L)(4) are also not applicable since the tank is exempted under OAC rule 3745-21-09(L)(2).

2.*b* This emissions unit is exempt from the requirements of 40 CFR Part 60, Subpart Kb, since the tank capacity is less than 75 cubic meters (19,815 gallons).

2.c This emissions unit is subject to NESHAPS standards in 40 CFR Part 61, Subpart FF. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.9 of this permit.

2.*d* This emissions unit is controlled by the thermal oxidizer which also controls emissions unit P025. Therefore, additional terms and conditions applicable to operation of the thermal oxidizer are shown in the terms and conditions for emissions unit P025.

2.*e* [40 CFR 63.647(a)]
Each permittee of a Group 1 wastewater stream shall comply with the requirements of 40 CFR 61.340 through 61.355 of 40 CFR Part 61, Subpart FF for each process wastewater stream that meets the definition in 40 CFR 63.641.

2.f Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. [40 CFR 63.654(a)]
Each permittee subject to the wastewater provisions in 40 CFR 63.647 shall comply with the record keeping provisions in 40 CFR 61.356 of 40 CFR Part 61, Subpart FF. There are no additional record keeping requirements for wastewater under this subpart.

IV. Reporting Requirements

1. [40 CFR 63.654(a)]
Each permittee subject to the wastewater provisions in 40 CFR 63.647 shall comply with the reporting provisions in 40 CFR 61.357 of 40 CFR Part 61, Subpart FF. There are no additional reporting requirements for wastewater under this subpart.

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

less than 0.1 lb of VOC/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program, and by using the VOC control efficiency from the most recent compliance testing of the thermal oxidizer.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100032 (T204)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof storage tank with a capacity of 14,500 gallons, controlled by a thermal oxidizer (group 1 storage vessel)	OAC rule 3745-31-05 (PTI 03-7545)	less than 0.1 lb of volatile organic compounds (VOC)/hr See A.V.1.
	OAC rule 3745-21-09(L)	exempt See A.I.2.a.
	40 CFR Part 60, Subpart Kb	exempt See A.I.2.b.
	40 CFR Part 63, Subpart CC	See A.I.2.e, A.III.1 and A.IV.1.
	40 CFR Part 61, Subpart FF	See A.I.2.c.
	40 CFR Part 63, Subpart A	See A.I.2.f.

2. Additional Terms and Conditions

2.*a* This emissions unit is exempt from the requirements of OAC rule 3745-21-09(L)(1), since it is a fixed roof tank with a capacity less than 40,000 gallons. The requirements of OAC rule 3745-21-09(L)(3) and 3745-21-09(L)(4) are also not applicable since the tank is exempted under OAC rule 3745-21-09(L)(2).

2.*b* This emissions unit is exempt from the requirements of 40 CFR Part 60, Subpart Kb, since the tank capacity is less than 75 cubic meters (19,815 gallons).

2.c This emissions unit is subject to NESHAPS standards in 40 CFR Part 61, Subpart FF. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.9 of this permit.

2.*d* This emissions unit is controlled by the thermal oxidizer which also controls emissions unit P025. Therefore, additional terms and conditions applicable to operation of the thermal oxidizer are shown in the terms and conditions for emissions unit P025.

2.*e* [40 CFR 63.647(a)]
Each permittee of a Group 1 wastewater stream shall comply with the requirements of 40 CFR 61.340 through 61.355 of 40 CFR Part 61, Subpart FF for each process wastewater stream that meets the definition in 40 CFR 63.641.

2.f Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. [40 CFR 63.654(a)]
Each permittee subject to the wastewater provisions in 40 CFR 63.647 shall comply with the record keeping provisions in 40 CFR 61.356 of 40 CFR Part 61, Subpart FF. There are no additional record keeping requirements for wastewater under this subpart.

IV. Reporting Requirements

1. [40 CFR 63.654(a)]
Each permittee subject to the wastewater provisions in 40 CFR 63.647 shall comply with the reporting provisions in 40 CFR 61.357 of 40 CFR Part 61, Subpart FF. There are no additional reporting requirements for wastewater under this subpart.

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

less than 0.1 lb of VOC/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program, and by using the VOC control efficiency from the most recent compliance testing of the thermal oxidizer.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100320 (T205)
Activity Description: Storage of Petroleum Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 13,649,234 gallons(welded shell construction, liquid-mounted, resilient foam-filled primary seal, rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100321 (T206)
Activity Description: Storage of Petroleum Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 13,649,234 gallons (welded shell construction, mechanical shoe primary seal, rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100322 (T207)
Activity Description: Storage of Petroleum Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 13,649,234 gallons (welded shell construction, liquid-mounted, resilient foam-filled primary seal, rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100323 (T208)
Activity Description: Storage of Petroleum Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground external floating roof storage tank with a capacity of 13,649,234 gallons(welded shell construction, mechanical shoe primary seal, rim-mounted, flexible wiper secondary seal) (group 1 storage vessel)	OAC rule 3745-21-09 (Z)	See A.I.2.a through A.I.2.g, A.III.1 through A.III.4, and A.IV.1.
	40 CFR Part 63, Subpart CC	See A.I.2.h.
	40 CFR Part 63, Subpart G	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a Any welded external floating roof storage tank equipped with a liquid-mounted primary seal and rim-mounted secondary seal, a mechanical shoe primary seal and a rim-mounted secondary seal, a mechanical shoe primary seal and a shoe-mounted, secondary seal, and the shoe-mounted secondary seal was installed prior to 1/10/81, a vapor-mounted primary seal and a rim-mounted secondary seal, and the vapor-mounted primary seal was installed prior to 1/01/81, or a flexible wiper primary seal and a rim-mounted secondary seal, and the flexible wiper primary seal was installed prior to 1/01/81 shall meet the following requirements:

i. There shall be no visible holes, tears, or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised "emission activity category" form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

2.b Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains and slotted gauging/sampling wells, shall be equipped with:

i. A cover, seal or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use.

ii. A projection into the tank below the liquid surface.

2.c Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

2.d Any rim vent shall be set to open at the manufacturer's recommended setting, except when the external floating roof is being floated off the roof leg supports.

2.e Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

2.f Any stub drain shall be equipped with a projection into the tank below the liquid surface.

2.g Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

2.h This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.i This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart G. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.11 of this permit.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions**.**

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

2. The secondary seal gap shall be measured annually in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

3. The primary seal gap shall be measured at least once every 5 years, in accordance with the methods specified in 40 CFR Part 63, Subpart G, which are equivalent to, or more stringent than OAC rule 3745-21-10.

4. The permittee shall maintain records of the following information:

   a. the dates and results of any seal and seal fabric inspections and any seal gap measurements;

   b. the types of petroleum liquids stored in the tank;

   c. the annual throughput of any petroleum liquid stored in the tank; and

   d. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 164627 (T209)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof storage tank with a capacity of 11,291 gallons (group 2 storage vessel)	OAC rule 3745-21-09(L)(2)(a)	exempt See A.I.2.a.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. **Additional Terms and Conditions**

2.a This emissions unit is exempt from the requirements of OAC rule 3745-21-09(L)(1) because it is a fixed roof storage tank with a capacity less than 40,000 gallons.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

1. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 104647 (T210)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof storage tank with a capacity of 22,326 gallons (group 2 storage vessel)	OAC rule 3745-21-09(L)(2)(a)	exempt See A.I.2.a.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. **Additional Terms and Conditions**

2.a This emissions unit is exempt from the requirements of OAC rule 3745-21-09(L)(1) because it is a fixed roof storage tank with a capacity less than 40,000 gallons.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100277 (T211)
Activity Description: Storage of Petroleum Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof storage tank with a capacity of 30,576 gallons (group 2 storage vessel)	OAC rule 3745-21-09(L)(2)(a)	exempt See A.I.2.a.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.1.
	40 CFR 63.654(i)(1)(iv)	See A.III.2.
	40 CFR 63.654(i)(4)	See A.III.3.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. **Additional Terms and Conditions**

2.a This emissions unit is exempt from the requirements of OAC rule 3745-21-09(L)(1) because it is a fixed roof storage tank with a capacity less than 40,000 gallons.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

2. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

3. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100072 (T212)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (592,178 gallons) (group 1 storage vessel)	OAC rule 3745-31-05(A)(3) (PTI No. 03-13434)	7.35 tons of volatile organic compounds (VOC)/yr See A.III.1.c and A.V.1.
	OAC rule 3745-21-09 (L)	See A.I.2.a through A.I.2.d, A.III.1.a and A.III.1.b.
	40 CFR Part 60, Subpart Kb	See A.I.2.e.
	40 CFR Part 61, Subpart FF	See A.I.2.f.
	40 CFR Part 63, Subpart CC:	See A.I.2.g.
	40 CFR 63.647(a)	See A.I.2.h.
	40 CFR 63.654(a)	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.e This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.f As an alternative to the standards for tanks specified in §61.343 of this subpart, the permittee has elected to comply with the following:

(1) A fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1);

If the permittee elects to comply with the provisions of 40 CFR 61.351(b) then the permittee is exempt from the provisions of §61.343 of this subpart applicable to the same facilities.

2.g After the compliance dates specified in paragraph (h) of 40 CFR 63.640, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of 40 CFR 63.640.

2.h Except as provided in paragraph (b) of this section, each owner or operator of a Grouop 1 wastewater stream shall comply with the requirements of §§61.340 through 61.355 fo 40 CFR part 61, supart FF for each process wastewater stream that meets the definition in §63.641.

2.i Each owner or operator subject to the wastewater provisions in §63.647 shall comply with the record keeping and reporting provisions in §§61.356 and 61.357 of 40 CFR Part 61, Subpart FF unless they are complying with the wastewater provisions specified in paragraph (o)(2)(ii) of §63.640. There are no additional reporting and record keeping requirements for wastewater under this subpart unless a wastewater stream is included in an emissions average. Record keeping and reporting for emissions averages are specified in §63.653 and in paragraphs (f)(5) and (g)(8) of this section.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

1.c The annual throughput of any petroleum liquid stored in the tank.

IV. Reporting Requirements

None

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

7.35 tons of VOC/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100481 (T213)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 70,476 gallons (group 2 storage vessel)	OAC rule 3745-31-05(A)(3) (PTI No. 03-13434)	6.43 tons of volatile organic compounds (VOC)/yr See A.III.1.a and A.V.1.
	OAC rule 3745-21-09(L)	See A.I.2.c.
	40 CFR Part 60, Subpart Ka	See A.I.2.a.
	40 CFR Part 63, Subpart CC	See A.I.2.b and A.II.1.
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(l)	See A.III.2.
	40 CFR 63.654(i)(l)(iv)	See A.III.3.
	40 CFR 63.654(i)(4)	See A.III.4.
	40 CFR Part 63, Subpart A	See A.I.2.d.

2. Additional Terms and Conditions

2.a This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Ka. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.6 of this permit.

2.b After the compliance dates specified in paragraph (h) of this section a Group 2 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart Ka, but not to the control requirements of 40 CFR part 60, subpart Ka, is required to comply only with the provisions of 40 CFR Part 63, Subpart CC.

2.c The requirements in OAC rule 3745-21-09(L) are less stringent than the requirements in 40 CFR Part 63, Subpart CC.

2.d Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than 1.51 pounds per square inch absolute.

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

   a. The annual throughput of any petroleum liquid stored in the tank.

2. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

3. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

4. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

None

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

6.43 tons of VOC/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100482 (T214)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 70,476 gallons (group 2 storage vessel)	OAC rule 3745-31-05(A)(3) (PTI No. 03-13434)	6.43 tons of volatile organic compounds (VOC)/yr See A.III.1.a and A.V.1.
	OAC rule 3745-21-09(L)	See A.I.2.c.
	40 CFR Part 60, Subpart Ka	See A.I.2.a.
	40 CFR Part 63, Subpart CC	See A.I.2.b and A.II.1.
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(l)	See A.III.2.
	40 CFR 63.654(i)(l)(iv)	See A.III.3.
	40 CFR 63.654(i)(4)	See A.III.4.
	40 CFR Part 63, Subpart A	See A.I.2.d.

2. Additional Terms and Conditions

2.a This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Ka. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.6 of this permit.

2.b After the compliance dates specified in paragraph (h) of this section a Group 2 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart Ka, but not to the control requirements of 40 CFR part 60, subpart Ka, is required to comply only with the provisions of 40 CFR Part 63, Subpart CC.

2.c The requirements in OAC rule 3745-21-09(L) are less stringent than the requirements in 40 CFR Part 63, Subpart CC.

2.d Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than 1.51 pounds per square inch absolute.

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

   a. The annual throughput of any petroleum liquid stored in the tank.

2. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

3. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

4. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

None

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

6.43 tons of VOC/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 164468 ("E-tank") (T217)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof tank with a capacity of 4,478,655 gallons, controlled by a thermal oxidizer (group 1 storage vessel)	OAC rule 3745-31-05(A)(3) (PTI No. 03-13434)	0.11 lb of volatile organic compounds (VOC)/hr See A.V.1.a. 0.48 ton of VOC/yr See A.V.1.b.
	OAC rule 3745-21-09(L)	See A.I.2.f.
	40 CFR Part 60, Subpart Ka	See A.I.2.a.
	40 CFR Part 63, Subpart CC	See A.I.2.b, A.I.2.d, A.III.1 and A.IV.1.
	40 CFR Part 61, Subpart FF	See A.I.2.c.
	40 CFR Part 63, Subpart A	See A.I.2.g.

2. Additional Terms and Conditions

2.a After the compliance dates specified in paragraph (h) of this section a Group 1 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart Ka is required to only comply with the provisions of 40 CFR Part 63, Subpart CC.

2.b This emissions unit is subject to MACT standards in 40 CFR Part 63, Subpart CC. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.12 of this permit.

2.c This emissions unit is subject to NESHAPS standards in 40 CFR Part 61, Subpart FF. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.9 of this permit.

2.*d* [40 CFR 63.647(a)]
Each permittee of a Group 1 wastewater stream shall comply with the requirements of 40 CFR 61.340 through 61.355 of 40 CFR Part 61, Subpart FF for each process wastewater stream that meets the definition in 40 CFR 63.641.

2.e This emissions unit is controlled by the thermal oxidizer which also controls emissions unit P025. Therefore, additional terms and conditions applicable to operation of the thermal oxidizer are shown in the terms and conditions for emissions unit P025.

2.f The requirements in OAC rule 3745-21-09(L) are less stringent than the requirements in 40 CFR Part 60, Subpart Ka. This storage tank has a capacity greater than 40,000 gallons with a maximum vapor pressure greater than 11.1 psia. Thus, the permittee uses a closed vent routed to the thermal oxidizer for control to satisfy the requirements of 40 CFR 60.112a. Since a control device is used, there are no restrictions on maximum vapor pressure.

2.g Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. [40 CFR 63.654(a)]
Each permittee subject to the wastewater provisions in 40 CFR 63.647 shall comply with the record keeping provisions in 40 CFR 61.356 of 40 CFR Part 61, Subpart FF. There are no additional record keeping requirements for wastewater under this subpart.

IV. Reporting Requirements

1. [40 CFR 63.654(a)]
Each permittee subject to the wastewater provisions in 40 CFR 63.647 shall comply with the reporting provisions in 40 CFR 61.357 of 40 CFR Part 61, Subpart FF. There are no additional reporting requirements for wastewater under this subpart.

V. Testing Requirements

1. Compliance with the emissions limitations in section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.11 lb of VOC/hr

Applicable Compliance Method:

The emission limitation was developed by applying a 98% control efficiency for use of a thermal oxidizer to working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program. If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 18, 25, or 25A, as appropriate.

1.b Emission Limitation:

0.48 ton of VOC/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance by applying a 98% control efficiency for use of a thermal oxidizer to working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 164242 (T219)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above-ground, fixed roof storage tank with a capacity of 22,000 gallons (group 2 storage vessel)	OAC rule 3745-31-05(A)(3) (PTI No. 03-13434)	0.47 ton of volatile organic compounds (VOC)/yr See A.III.1 and A.V.1.
	OAC rule 3745-21-09(L)(2)(a)	exempt See A.I.2.a.
	40 CFR Part 63, Subpart CC:	
	40 CFR 63.123(a) as referenced by 40 CFR 63.654(i)(1)	See A.III.2.
	40 CFR 63.654(i)(1)(iv)	See A.III.3.
	40 CFR 63.654(i)(4)	See A.III.4.
	40 CFR Part 63, Subpart A	See A.I.2.b.

2. Additional Terms and Conditions

2.a This emissions unit is exempt from the requirements of OAC rule 3745-21-09(L)(1) because it is a fixed roof storage tank with a capacity less than 40,000 gallons.

2.b Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the annual throughput of any petroleum liquid stored in the tank.

2. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this subpart.

3. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

4. All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

IV. Reporting Requirements

None

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

0.47 ton of VOC/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance by working and breathing loss calculations as determined by the U.S. EPA Tanks 4.0 program.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 100077 (T220)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
above ground internal floating roof tank (79,800 gallons) (group 1 storage vessel)	OAC rule 3745-21-09 (L)	See A.I.2.a through A.I.2.d and A.III.1.
	40 CFR Part 60, Subpart Kb	See A.I.2.e.
	40 CFR Part 61, Subpart FF	See A.I.2.f.
	40 CFR Part 63, Subpart CC:	See A.I.2.g.
	40 CFR 63.647(a)	See A.I.2.h.
	40 CFR 63.654(a)	See A.I.2.i.
	40 CFR Part 63, Subpart A	See A.I.2.j.

2. Additional Terms and Conditions

2.a The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.c The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

2.e This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.f As an alternative to the standards for tanks specified in §61.343 of this subpart, the permittee has elected to comply with the following:

(1) A fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1);

If the permittee elects to comply with the provisions of 40 CFR 61.351(b) then the permittee is exempt from the provisions of §61.343 of this subpart applicable to the same facilities.

2.g After the compliance dates specified in paragraph (h) 40 CFR 63.640, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of 40 CFR 63.640.

2.h Except as provided in paragraph (b) of this section, each owner or operator of a Group 1 wastewater stream shall comply with the requirements of §§61.340 through 61.355 fo 40 CFR Part 61, Subpart FF for each process wastewater stream that meets the definition in §63.641.

2.i Each owner or operator subject to the wastewater provisions in §63.647 shall comply with the record keeping and reporting provisions in §§61.356 and 61.357 of 40 CFR Part 61, Subpart FF unless they are complying with the wastewater provisions specified in paragraph (o)(2)(ii) of §63.640. There are no additional reporting and record keeping requirements for wastewater under this subpart unless a wastewater stream is included in an emissions average. Record keeping and reporting for emissions averages are specified in §63.653 and in paragraphs (f)(5) and (g)(8) of this section.

2.j Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

1. The permittee shall maintain records of the following information:

1.a the types of petroleum liquids stored in the tank; and

1.b the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid. that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 56 (T222)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
T222 - 2,520,000 gallons fixed roof storage tank (tank 56) (group 2 storage vessel)	OAC rule 3745-31-05(A)(3) (PTI No. 03-13669)	36.45 tons of organic compounds (OC)/yr See A.III.1, A.IV.2 and A.V.1.
	OAC rule 3745-21-09(L)	exempt See A.II.1 and A.IV.1.
	40 CFR Part 60, Subpart Kb	See A.I.2.a.
	40 CFR Part 63, Subpart CC	See A.I.2.b.
	40 CFR Part 63, Subpart A	See A.I.2.c.

2. Additional Terms and Conditions

2.a This emissions unit is subject to NSPS standards in 40 CFR Part 60, Subpart Kb. Applicable rules are listed in Part II - Specific Facility Terms and Conditions, State and Federally Enforceable Section A.7 of this permit.

2.b After the compliance dates specified in paragraph (h) 40 CFR 63.640, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of 40 CFR 63.640.

2.c Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than 0.750 pound per square inch absolute.

III. Monitoring and/or Record keeping Requirements

1. In accordance with 40 CFR 60.116b(b), the owner and operator of this emissions unit shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for the life of the emissions unit.

   In order to comply with the requirements of 40 CFR 60.116b(c) and to demonstrate compliance with the emission limitation of 36.45 tons of OC per year the permittee shall collect and record the following information each month:

   a. the volatile organic liquid (VOL) stored;

   b. the maximum true vapor pressure, in pounds per square inch absolute of VOL stored;

   c. the VOL throughput, in gallons per month;

   d. the calculated OC emissions, in tons per month (OC emissions shall be calculated using the most recent version of the USEPA tanks program); and

   e. the annual OC emissions, in tons per year (summation of A.III.1.d for each month to date for the calendar year).

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is greater than 0.750 pound per square inch absolute, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

2. The permittee shall submit annual deviation (excursion) reports that identify any and all exceedances of the annual material throughput limitation, as well as the corrective actions taken to achieve compliance. If no deviations occurred during a calendar year, the permittee shall submit an annual report which states that no deviations occurred during that year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitation in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

   1.a Emission Limitation:

   36.45 tons of OC/yr

   Applicable Compliance Method:

   Compliance shall be determined by the monitoring and record keeping in section A.III.1.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Tank 71 (T223)
Activity Description: Storage of Organic Liquids

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
705,022-gallon fixed roof tank (tank 71)	OAC rule 3745-31-05(A)(3) (PTI 03-16166)	21.06 tpy of organic compounds (OC) See sections A.I.2.a and A.I.2.c.
	OAC rule 3745-21-09(L)	Exempt See section A.II.
	40 CFR Part 60, Subpart Kb	Record keeping and Reporting Requirements See section A.III.
	40 CFR Part 63, Subpart CC	Overlap of Subpart CC with other regulations for storage vessels See section A.I.2.b.
	40 CFR Part 63, Subpart A	See section A.I.2.d.

2. Additional Terms and Conditions

2.a The "Best Available Technology" (BAT) requirement for this emissions unit has been determined to be the use of a submerged fill pipe.

2.b Emissions unit T223 is a group 2 storage vessel (as defined in 40 CFR 63.641) to be installed at an existing source and is also subject to the provisions of 40 CFR Part 60, Subpart Kb. In accordance with 40 CFR 63.640(n)(1), emissions unit T223 is only required to comply with the requirements of 40 CFR Part 60, Subpart Kb.

2.c The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart Kb and 40 CFR Part 63, Subpart CC.

2.d Refer to Part II - Specific Facility Terms and Conditions of this permit, section A.10, for the requirements of 40 CFR Part 63, Subpart A; - National Emission Standards for Hazardous Air Pollutants - General Provisions.

II. Operational Restrictions

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than 0.750 pound per square inch absolute.

III. Monitoring and/or Record keeping

1. In accordance with 40 CFR 60.116b(b), the permittee of this emissions unit shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the life of the emissions unit.

2. In order to comply with the requirements of 40 CFR 60.116b(c) and to demonstrate compliance with the emission limitation of 21.06 tons OC per year, the permittee shall collect and record the following information each month:

   a. the volatile organic liquid (VOL) stored;

   b. the maximum true vapor pressure, in pounds per square inch absolute of VOL stored;

   c. the VOL throughput, in gallons per month;

   d. the calculated OC emissions, in tons per month (OC emissions shall be calculated using the most recent version of the USEPA tanks program); and

   e. the annual OC emissions, in tons per year (summation of "d" for each month, to date, for the calendar year).

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is greater than 0.750 pound per square inch absolute, the permittee shall notify the Director (the Ohio EPA Northwest District Office) within 30 days of becoming aware of the occurrence.

2. The permittee shall submit annual deviation (excursion) reports that identify any and all exceedances of the annual material throughput limitation, as well as the corrective actions taken to achieve compliance. If no deviations occurred during a calendar year, the permittee shall submit

an annual report which states that no deviations occurred during that year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

   a. Emission Limitation:

      21.06 tpy of OC

      Applicable Compliance Method:

      Compliance shall be determined by the monitoring and record keeping in section A.III.1.

VI. Miscellaneous Requirements

None

Federal Register

Thursday,
April 11, 2002

Part II

Environmental Protection Agency

40 CFR Part 63

National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[FRL–7163–7]

RIN 2060–AF28

National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action establishes final national emission standards for hazardous air pollutants (NESHAP) for certain types of affected sources at petroleum refineries. The affected sources include catalytic cracking units (CCU), catalytic reforming units, and sulfur recovery units, as well as associated by-pass lines. The EPA has identified petroleum refineries as major sources of hazardous air pollutants (HAP). Hazardous air pollutants that would be reduced by this final rule include organics (acetaldehyde, benzene, formaldehyde, hexane, phenol, toluene, and xylene); reduced sulfur compounds (carbonyl sulfide, carbon disulfide); inorganics (hydrogen chloride, chlorine); and particulate metals (antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, and nickel). The health effects of exposure to these HAP can include cancer, respiratory irritation, and damage to the nervous system. These final standards implement section 112(d) of the Clean Air Act (CAA) by requiring all petroleum refineries that are major sources to meet standards reflecting the application of the maximum achievable control technology (MACT). When fully implemented, this rule will reduce HAP emissions from the affected sources by nearly 11,000 tons per year tpy—an 87 percent reduction from current levels. Emissions of other pollutants such as volatile organic compounds (VOC), particulate matter (PM), carbon monoxide (CO), and hydrogen sulfide will be reduced by about 60,000 tpy.

EFFECTIVE DATE: April 11, 2002.

ADDRESSES: Docket No. A–97–36 contains supporting information used in developing this rule. The docket is located at the U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 in room M–1500, Waterside Mall (ground floor), and may be inspected from 8:30 a.m. to 5:30 p.m., Monday through Friday, excluding legal holidays.

FOR FURTHER INFORMATION CONTACT: For information on the basis for the rule, contact Mr. Robert B. Lucas, Waste and Chemical Process Group, Emission Standards Division (C439–03), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number (919) 541–0884, electronic mail address, ''*lucas.bob@epa.gov;*'' for information concerning legal matters, contact Mr. Richard Vetter, Emission Standards Division (C439–03), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number (919) 541–2127, electronic mail address, ''*vetter.rick@epa.gov*'' for questions concerning compliance determinations, contact Mr. Thomas Ripp, Office of Enforcement and Compliance Assurance (2223A), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, telephone number (202) 564–7003, electronic mail address, ''*ripp.tom@epa.gov*'' or for information on the test methods, contact Ms. Rima Howell, Emissions Monitoring and Analysis Division (D205–02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number (919) 541–0443, electronic mail address, ''*howell.rima@epa.gov*''. For applicability determination questions, refer to the table in the **SUPPLEMENTARY INFORMATION** section.

SUPPLEMENTARY INFORMATION: *Docket.* The docket is an organized and complete file of all the information considered by the EPA in the development of this rule. The docket is a dynamic file because material is added throughout the rulemaking process. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the proposed and promulgated rules and their preambles, the contents of the docket will serve as the record in the case of judicial review. (See section 307(d)(7)(A) of the CAA.) Other material related to this rulemaking is available for review in the docket or copies may be mailed on request from the Air Docket by calling (202) 260–7548. A reasonable fee may be charged for copying docket materials.

World Wide Web (WWW). In addition to being available in the docket, an electronic copy of today's final rule will also be available on the WWW through the Technology Transfer Network (TTN). Following signature, a copy of the rule will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Judicial Review. Today's action constitutes final administrative action on the proposed NESHAP for CCU, catalytic reforming units, and sulfur recovery units (63 FR 48890, September 11, 1998). Under section 307(b)(1) of the CAA, judicial review of the final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by June 10, 2002. Under section 307(b)(2) of the CAA, the requirements that are the subject of this document may not be challenged later in civil or criminal proceedings brought by the EPA to enforce these requirements.

Regional Contacts for Applicability Determination

Region I, Director, Air Compliance Programs, EPA New England, 1 Congress Street, Suite 1100 (SEA), Boston, MA 02114–2023, Phone contact: (617) 918–1656 FAX: (617) 918–1112.

Region II, U.S. EPA, 290 Broadway, New York, NY 10007–1866, Phone (212) 637–3000, FAX (212) 637–3526.

Region III, Dianne Walker (3AP11) U.S. EPA, 1650 Arch Street, Philadelphia, PA 19103–2029, Phone: (215) 814–3297, FAX: (215) 814–5103.

Region IV, Leonardo Ceron, U.S. EPA, 61 Forsyth Street, SW., Atlanta, GA 30303–3104, Phone: (404) 562–9900, FAX: (404–562–8174.

Region V, Kathy Keith U.S. EPA, 77 West Jackson Boulevard, Chicago, IL 60604–3507, Phone: (312) 353–6956, FAX: (312) 353–4135.

Region VI, U.S. EPA, Martin E. Brittain (214) 665–7206, Jonathan York (214) 665–7289, Barry Feldman (214) 665–7439, Fountain Place, 12th Floor, Suite 1200, 1445 Ross Avenue, Dallas, TX 75292–2733, FAX: (214) 665–2146.

Region VII, Bill Peterson, U.S. EPA, 726 Minnesota Avenue, Kansas City, KS 66101, Phone: (913) 551–7881, FAX: (913) 551–7467.

Region VIII, Art Palomares (303–312–6332), e-mail: *Palomares.Art@epa.gov,* Tami Thomas-Burton (303–312–6581). e-mail: Thomas-burton.tami@epa.gov, U.S. EPA, MACT Enforcement, 999 18th Street, Suite 500, ENF–T, Denver, Colorado 80202, FAX: 303–312–6409.

Region IX, John Kim, U.S. EPA, 75 Hawthorne Street (AIR–5), San Francisco, CA 94105, Phone: (415) 744–1263, FAX: (415) 744–2499.

Region X, Kai–Hon Shum, U.S. EPA, Office of Air Quality, 1200 Sixth Avenue (OAQ–107), Seattle, Washington 98101, Phone: (206) 553–2117, FAX: 206–553–0149.

Regulated Entities. Categories and entities potentially regulated by this action include:

Category	SIC code	NAIC	Examples of regulated entities
Industry	2911	32411	Petroleum refineries that operate CCU, catalytic reforming units, or sulfur recovery units.
Federal Government			Not affected.
State/local/tribal			Not affected.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility is regulated by this action, you should examine the applicability criteria in § 63.1561 of the final rule. If you have any questions regarding the applicability of this action to a particular entity, consult the appropriate person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Outline. The information in this preamble is organized as follows:

I. Background
II. Summary of Final Rule and Changes Since Proposal
A. Who must comply with this rule?
B. What equipment is covered?
C. When must I comply?
D. What are the emission limitations and other standards?
E. How do I demonstrate initial compliance?
F. How do I demonstrate continuous compliance?
G. What are the notification, recordkeeping, and reporting requirements?
III. Summary of Environmental, Energy, and Economic Impacts
A. What are the air quality impacts?
B. What are the cost impacts?
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IV. Summary of Major Comments and Responses
A. Why did we extend the compliance date?
B. What is the new alternative nickel emission limitation?
C. Why did we not change the proposed nickel emission limitation?
D. How did we change the proposed monitoring requirements?
V. Administrative Requirements
A. Executive Order 12866, Regulatory Planning and Review
B. Executive Order 13132, Federalism
C. Executive Order 13175, Consultation and Coordination with Indian Tribal Governments
D. Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks
E. Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution or Use
F. Unfunded Mandates Reform Act of 1995
G. Regulatory Flexibility Act (RFA), as Amended by Small Business Regulatory Enforcement Act of 1996 (SBREFA), 5 U.S.C. 601 *et seq.*
H. Paperwork Reduction Act
I. National Technology Transfer and Advancement Act of 1995
J. Congressional Review Act

I. Background

The CAA was created in part to protect and enhance the quality of the Nation's air resources to promote public health and welfare and the productive capability of its population. Section 112(d) of the CAA requires us (the EPA) to establish standards for all categories and subcategories of major sources of HAP and for area sources listed for regulation under section 112(c). Major sources are those that emit or have the potential to emit at least 10 tpy of any single HAP or 25 tpy of any combination of HAP. Area sources are stationary sources of HAP that are not major sources.

We received 40 public comments on the proposed NESHAP. Commenters included industry representatives and trade associations, State and local agencies, environmental groups, vendors, and technical experts. To provide interested individuals the opportunity for oral presentations of data, views, or arguments concerning the proposed rule, we held a public hearing on October 14, 1998, and extended the end of the public comment period from November 10, 1998, to December 1, 1998 (Docket A–97–36). Today's final rule reflects our full consideration of all the comments we received. Major public comments on the proposed rule along with our responses to these comments are summarized in this document. See the Response to Comment Document (Docket A–97–36) for detailed responses to all the comments.

II. Summary of Final Rule and Changes Since Proposal

We revised the overall format of the rule to make it easier to understand, implement, and enforce. Separate sections of this ''plain language'' final rule cover the requirements for each type of HAP (i.e., metal HAP, organic HAP, inorganic HAP, or overall HAP) from an affected source. Each section of the rule refers you (the refinery owner or operator) to tables at the end of the rule that list the specific rule requirements and give step-by-step instructions on how to demonstrate initial and continuous compliance.

For purposes of the final rule, the title has been changed to ''National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units'' to better describe the affected population. The source category list will be amended to reflect this name change in a separate action.

In the past year, six petroleum refining companies have signed voluntary settlements with EPA which will add controls for CCU and SRU that will comply with this final rule. We have not revised the impact estimates to reflect the controls resulting from these settlements.

A. Who Must Comply With This Rule?

The final rule (subpart UUU) applies to you if your petroleum refinery is a major source of HAP emissions and includes an affected source covered by the rule. Based on our data, we believe all 164 existing petroleum refineries in the U.S. and its territories are major

sources; 132 of these facilities have one or more of the affected sources subject to the rule requirements.

B. What Equipment Is Covered?

Section 63.1562 of the final rule identifies each type of affected source as well as equipment or processes not covered by the rule. As proposed, three types of existing, new, or reconstructed units are subject to the rule. These are:

- Each CCU that regenerates catalyst;
- Each catalytic reforming unit that regenerates catalyst; and
- Each sulfur recovery unit and the tail gas treatment unit serving it.

The rule also applies to each by-pass line serving a new, existing, or reconstructed affected source. We have clarified the applicability of the rule to emphasize that the unit is the affected source while the emission limits and standards apply to the specified type of vent associated with the unit.

The final rule applies only to the predominant type of CCU—those using a fluidized bed (i.e., fluid CCU). We also revised the applicability of the rule to exclude redundant sulfur recovery units not located at a petroleum refinery and used by the refinery only for emergency or maintenance backup. Consistent with the proposed rule, the final rule doesn't apply to a sulfur recovery unit that doesn't recover elemental sulfur, certain equipment associated with by-pass lines (i.e., low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, or pressure relief valves needed for safety reasons), or gaseous streams routed to a fuel gas system.

C. When Must I Comply?

Section 63.1563 of the final rule gives the compliance dates. As discussed further in section IV.A of this document, we have included provisions allowing an extended compliance date for existing fluid CCU located at a petroleum refinery that commits to hydrotreating the CCU feed to comply with the gasoline sulfur control requirements in the Tier 2 Motor Vehicle Emission Standards (40 CFR part 80) and the applicable emission limitations in subpart UUU. The compliance date for these existing affected sources will depend on when the refinery must meet the 30 parts per million (ppm) limit for gasoline sulfur content, but can't be any later than December 31, 2009. Otherwise, affected sources must comply within 3 years from today's date.

We also clarified the compliance dates for new or reconstructed affected sources. If you started your new or reconstructed affected source before today's date, you must comply with the applicable rule requirements by today. If you start your new or reconstructed affected source after today's date, you must comply with the rule requirements upon startup.

D. What Are the Emission Limitations and Other Standards?

The final rule includes emission limitations for HAP emissions of particulate metals and organic compounds from CCU, organic and inorganic compounds from catalytic reforming units, and reduced sulfur compounds from sulfur recovery units. An emission limitation means any emission limit, operating limit, opacity limit, or visible emissions limit. Surrogates are used in this rule to represent the HAP emissions. They allow easier, less expensive measurement and monitoring requirements. For CCU, PM and nickel (Ni) are used as surrogates for metal HAP. Carbon monoxide is used as a surrogate for organic HAP emissions. Total organic carbon (TOC) is a surrogate for organic HAP emissions from catalytic reforming units while hydrogen chloride (HCl) represents inorganic HAP emissions. Sulfur dioxide (SO_2) or total reduced sulfur (TRS) represent the reduced sulfur HAP emissions from sulfur recovery units.

We made no changes in the MACT floor determinations of control technologies serving as the basis of the proposed rule. The emission control technologies and limits are discussed in the preamble to the proposed NESHAP (63 FR 48890). However, we did revise in other respects the emission limitations and standards that reflect the performance of the MACT floor technologies.

In response to public comments, we clarified the requirements for affected sources also subject to the new source performance standard (NSPS) for petroleum refineries (40 CFR part 60, subpart J) and added new compliance options. If your affected source is also subject to the NSPS, complying with the NSPS emission limitations also allows you to comply with this rule. If your affected source isn't subject to the NSPS, you can elect to comply with the NSPS emission limitations in order to be in compliance with this rule.

As further discussed in section IV.B of this document, we also added a second Ni limit as another metal HAP compliance option for CCU. This alternative provides an emission limit formatted to account for the variable characteristics of these units. We added it to the rule both to credit and encourage hydrotreating of the CCU feed as a means of reducing metal HAP emissions to the atmosphere.

We also made a change to the TOC emission limit for catalytic reforming units in § 63.1562(b)(1)(iii) of the proposed rule. This provision exempted emissions during depressuring and purging operations if the reactor vent pressure or differential pressure between the reactor vent and the gas transfer system to the control device were under 1 pound per square inch gauge (psig). Since 5 psig is the limit in States with facilities representing the MACT floor, we revised this provision to state that the emission limitations do not apply to depressuring and purging when the reactor vent pressure is 5 psig or less.

The final rule also includes specific operating limits for monitored process or control device operating parameters. Operating limits also may apply if you choose to comply with certain options, such as the alternative Ni emission limitations for CCU.

Tables 1, 2, 8, and 9 to the final rule (subpart UUU) show the final emission limitations for CCU. Tables 15, 16, 22, and 23 to subpart UUU give the emission limitations for catalytic reforming units. The final emission limitations for sulfur recovery units are in Tables 29 and 30 to subpart UUU.

The final rule also includes work practice standards for HAP emissions from by-pass lines. A work practice standard may include a design, equipment, work practice, or operational requirement. Table 36 to subpart UUU lists the four options provided under the final rule. The final rule also includes work practice standards for all affected sources. These standards require you to prepare an operation, maintenance, and monitoring plan according to the rule requirements and comply with the procedures in the plan. This plan must be consistent with good air pollution control practices for minimizing emissions.

E. How Do I Demonstrate Initial Compliance?

You must install and operate the required continuous monitoring systems and show that you meet each emission limitation or work practice standard that applies to you. The requirements for demonstrating initial compliance differ by unit type and according to whether or not your affected source is also subject to the NSPS requirements.

If your CCU or sulfur recovery unit is also subject to the NSPS, you must meet the applicable emission limitations and monitoring requirements in this rule. These requirements in this case are the same as the NSPS. If you have already

done a performance test to demonstrate initial compliance with the NSPS, you aren't required to do another test to demonstrate initial compliance with the limits in this rule. If you have already done a performance test, you aren't required to do another one to show that your continuous opacity and emission monitoring systems meet the applicable performance specifications. You can demonstrate initial compliance for these affected sources by submitting a written statement in your Notification of Compliance Status certifying that you comply with the applicable NSPS requirements.

We have revised the requirements for affected sources not subject to the NSPS to account for the new compliance options, as well as revisions to monitoring requirements. Your requirements for demonstrating initial compliance will vary according to the compliance option you elect and the type of continuous monitoring system you must use.

1. HAP Metal Emissions From CCU

If you elect to comply with the NSPS, you must install and operate a continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent. The final rule also requires a continuous opacity monitoring system if your CCU has a fresh feed capacity of 20,000 barrels per day (or more) and uses an add-on control device other than a wet scrubber (e.g., an electrostatic precipitator) to control the catalyst regenerator vent emissions. You also must install and operate a continuous opacity monitoring system if your CCU isn't equipped with an add-on control device. If you use a continuous opacity monitoring system and elect to comply with either of the Ni limits, you also must install and operate a continuous parameter monitoring system to measure and record the gas flow rate. Or, you can use the approved alternative procedure in the final rule to determine the gas flow rate.

For a smaller CCU (fresh feed capacity 20,000 barrels per day or less) that uses an electrostatic precipitator to control emissions from the catalyst regenerator vent, you can use a continuous opacity monitoring system (with a continuous monitoring parameter system for gas flow rate if you elect either of the Ni options) or continuous parameter monitoring systems. The continuous parameter monitoring systems must measure and record the gas flow rate as well as the voltage and secondary current (or total power input).

If you use a wet scrubber to control emissions from your catalyst regenerator vent, you must use continuous parameter monitoring systems to measure and record the pressure drop across the scrubber, the gas flow rate, and the total liquid (or scrubbing liquor) flow rate, regardless of unit capacity. In response to comments, we exempted non-Venturi wet scrubbers of the jet-ejector design from monitoring requirements and operating limits for pressure drop.

Section 63.1573 of the final rule provides approved alternative monitoring procedures. If applicable, you can use these alternative procedures to determine the gas flow rate rather than a continuous parameter monitoring system.

You must prepare a site-specific test plan and do a performance test to demonstrate initial compliance with the applicable emission limitation(s). If you use a continuous opacity monitoring system and elect to meet the NSPS, you also must do a site-specific performance evaluation test plan and performance evaluation to show that your monitoring system meets the applicable performance specification.

If you use a continuous opacity monitoring system and elect the PM limit, you must use the performance test results to establish a site-specific opacity operating limit. If you elect either Ni limit, you must use the performance test results to establish a site-specific Ni operating limit based on opacity, gas flow rate, equilibrium catalyst Ni concentration, and coke burn-rate (depending on the format of the option you elect). You can use EPA Method 6010b, 6020, 7520, or 7521 in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, Revision 5 (April 1998) or an alternative method satisfactory to the Administrator to analyze the equilibrium catalyst Ni concentration. The final rule includes procedures for establishing each type of operating limit.

If you use continuous parameter monitoring systems for an electrostatic precipitator and elect the PM emission limitation, you must use the performance test results to establish operating limits for gas flow rate and voltage and secondary current (or total power input). If you elect either of the Ni limits, you must establish operating limits for the equilibrium catalyst Ni concentration. If you use a wet scrubber, you must use the performance test results to establish operating limits for pressure drop and liquid-to-gas ratio (if you elect the PM limit) as well as equilibrium catalyst Ni concentration (if you elect either of the Ni limits).

Table 3 to subpart UUU shows the requirements for continuous monitoring systems for HAP metal emissions from CCU. Table 4 to subpart UUU shows the performance test requirements under each of the four compliance options. You have demonstrated initial compliance with the metal HAP emission limitations if you meet the conditions in Table 5 to subpart UUU.

2. Organic HAP Emissions From CCU

Table 10 to subpart UUU shows the requirements for continuous monitoring systems for organic HAP emissions from CCU. If you elect to comply with the NSPS requirements, you must install and operate a continuous emission monitoring system to measure and record the concentration by volume (dry basis) of CO emissions from each catalyst regenerator vent.

If you don't elect to comply with the NSPS requirements, you must use continuous parameter monitoring systems. In response to comments, we have revised the proposed requirements for thermal incinerators to include a continuous parameter monitoring system to measure and record the oxygen content (percent dry basis) in the incinerator vent stream as well as the combustion zone temperature. If your unit is not equipped with a combustion control device, the final rule requires that you use a continuous emission monitoring system. Like the NSPS, if you can demonstrate that emissions from your vent average 50 ppm or less, the final rule does not require a continuous emission monitoring system or a continuous parameter monitoring system.

To demonstrate initial compliance, you must prepare a site-specific test plan and do a performance test to show that your vent meets the emission limit. If you use a continuous emission monitoring system and elect to comply with the NSPS, you also must prepare a site-specific performance evaluation test plan and do a performance evaluation to show that your system meets the applicable performance specification.

If you use continuous parameter monitoring systems, you must use the test results to establish operating limits for combustion zone temperature and oxygen concentration in the vent stream. We also clarified the performance test provisions for flares, which require a visible emissions test by Method 22 with a 2-hour observation period.

Table 11 to subpart UUU shows the performance test requirements for organic HAP emissions. You have demonstrated initial compliance with

the organic HAP emission limits if you meet the conditions in Table 12 to subpart UUU.

3. Organic HAP Emissions From Catalytic Reforming Units

Table 17 to subpart UUU shows the continuous monitoring system requirements for organic HAP emissions from catalytic reforming units. We didn't revise the proposed requirements for continuous monitoring systems for these units.

To demonstrate initial compliance, you must prepare a site-specific test plan and do a performance test to show that your vent meets the applicable emission limitation. We revised the proposed performance test procedures to remove Method 18 (40 CFR part 60, appendix A) for measurement of TOC concentration. You can use Method 25 or 25A for TOC concentration. We also clarified the requirements for flares (see section II.E of this document). Using the performance test results, you must establish operating limits for the combustion zone temperature of your combustion control device. Table 18 to subpart UUU shows the performance test requirements. You have demonstrated initial compliance with the emission limitations if you meet the conditions in Table 19 to subpart UUU.

4. Inorganic HAP Emissions From Catalytic Reforming Units

Table 24 to subpart UUU shows the continuous monitoring system requirements for inorganic HAP emissions from catalytic reforming units. We revised the proposed requirements for wet scrubbers to include a continuous parameter monitoring system to measure and record the pH of the water (or scrubbing liquid) exiting the scrubber instead of a continuous parameter monitoring system for pressure drop. You can also use the approved monitoring alternative for pH strips in lieu of a continuous parameter monitoring system. We also revised the proposed rule to include requirements for units with an internal scrubbing system (i.e., no add-on control device) based on use of colormetric tube sampling systems.

Table 25 to subpart UUU shows the performance test requirements for inorganic HAP emissions from catalytic reforming units. You must prepare a site-specific test plan and do a performance test to show that you meet the applicable emission limitation. We revised the proposed performance test requirements to specify that you can't make any test runs during the first hour or the last 6 hours of the cycle for a semi-regenerative or cyclic regeneration unit. Using the results of the performance test, you must establish operating limits for the liquid-to-gas ratio and pH of the scrubber water (or scrubbing liquid). If you don't use a control device, you must establish an operating limit for the HCl concentration using colormetric tubes. You can use Method 26 in 40 CFR part 60, appendix B, to measure emissions from these units. You have achieved initial compliance with the inorganic HAP emission standards if you meet the conditions in Table 26 to subpart UUU.

5. Organic HAP Emissions From Sulfur Recovery Units

Table 31 to subpart UUU shows the continuous monitoring system requirements for organic HAP emissions from sulfur recovery units. If you elect to comply with the NSPS requirements, you must install and operate a continuous emission monitoring system to measure and record the concentration (dry basis, zero percent excess air) of SO2 emissions exiting each exhaust stack for the unit if you use an oxidation or reduction control system followed by incineration. If you use a reduction control system without incineration, you must use continuous emission monitoring systems to measure and record the concentration of reduced sulfur and oxygen emissions. If you elect to comply with the TRS limit and use an incinerator to control emissions from your vent, you must install and operate a continuous emission monitoring system or a continuous parameter monitoring system to measure and record the combustion zone temperature and the oxygen content (percent, dry basis) in the vent stream of the incinerator. If you do not use an add-on control device to control emissions from your vent, you must install and operate a continuous emission monitoring system to measure and record the concentration of TRS.

You must prepare a site-specific test plan and do a performance test to show that emissions from your vent meet the applicable standard. If you use a continuous emission monitoring system and elect to meet the NSPS, you also must do a site-specific performance evaluation test plan and a performance evaluation to show that your system meets the applicable performance specification. If you use continuous parameter monitoring systems, you must establish operating limits for oxygen concentration as well as for combustion zone temperature. Table 32 to subpart UUU shows the performance test requirements for each option. You have demonstrated initial compliance if you meet the conditions specified in Table 33 to subpart UUU.

6. HAP Emissions From Bypass Lines

We revised the proposed standards for by-pass lines to include two new equipment options suggested by commenters. Table 37 to subpart UUU shows the performance test requirement applicable to a flow indicator, level recorder, or electronic valve position monitor. You have achieved initial compliance if you meet the applicable conditions for the work practice option you select shown in Table 38 to subpart UUU.

7. Continuous Monitoring System Requirements

We added new sections (§§ 63.1572 and 63.1573) to the final rule to clearly identify the requirements for monitor installation and operation and monitoring alternatives. Table 40 to subpart UUU shows the requirements for continuous opacity monitoring systems and continuous emission monitoring systems, which are the same as the NSPS. Table 41 to subpart UUU shows the requirements for installation and operation of continuous parameter monitoring systems. We have revised these requirements to include more detailed requirements for inspections and calibration checks as well as performance specifications for some types of systems. We also revised the rule to clarify that each continuous parameter monitoring system must measure and record on an hourly or hourly average basis and determine and record the daily average value.

The final rule also specifies that you operate your monitors (or collect data at all required intervals) at all times the affected source is operating. This does not apply to monitoring malfunctions, associated repairs, required quality assurance or control activities, and preapproved planned maintenance activities. You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations or to meet a minimum data availability requirement.

8. Performance Tests, Performance Evaluations, and Engineering Assessments

Section 63.1571 of the final rule contains general information and criteria you must meet for these activities. We have clarified the rule to specify that you can do your performance test at any time from today's date to your compliance date. In response to comments, we revised

§ 63.1564(e) of the proposed rule to require that the tests be done under normal operating conditions rather than at ''maximum representative operating capacity for the process.'' You must base your process or control device operating limits on the performance test measurements. However, unless you elect one of the two Ni options for metal HAP emissions from CCU, you can adjust the measured values, if necessary, using control device design specifications, manufacturer recommendations, or other applicable data. You must document any adjustment to the satisfaction of your permitting authority. We added special provisions to the rule for adjusting the Ni-related values.

This section of the rule also covers how to change your operating limit. While you can change your site-specific opacity operating limit or Ni operating limit only by doing a new performance test, you can change other operating limits for continuous parameter monitoring systems by doing another performance test, a performance test in conjunction with an engineering assessment, or by an engineering assessment. You must establish a revised limit if you make any change in the process or operating conditions that could affect control system performance or if you change the designated conditions after the last performance or compliance tests were done.

F. How Do I Demonstrate Continuous Compliance?

A new section, § 63.1570, of the final rule states your general requirements for complying with this rule. You must be in compliance with all of the non-opacity emission limits during the times specified in § 63.6(g)(1). You must be in compliance with the opacity emission limits during the times specified in § 63.6(h)(1). You must always operate and maintain your affected source, including air pollution and control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i).

Subpart UUU requires that you develop and implement a startup, shutdown, and malfunction plan according to the requirements in § 63.6(e)(3). During periods of startup, shutdown, or malfunction, you must operate your affected source and control equipment according to your plan.

You must report each instance in which you did not meet each emission limitation or work practice standard that applies to you. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations and work practice standards that must be reported according the requirements in § 63.1575 of the final rule.

Consistent with §§ 63.6(e) and 63.7(e)(1), a deviation that occurs during a period of startup, shutdown, or malfunction is not a violation if you demonstrate to the Administrator's satisfaction that you were operating in accordance with your startup, shutdown, and malfunction plan. The Administrator will determine whether a deviation that occurs during a period of startup, shutdown, or malfunction is a violation according to the provisions in § 63.6(e). As proposed, multiple deviations from the same control device at the same time when you monitor process or control device operating parameters are a single deviation. You still must report each deviation.

You must demonstrate continuous compliance with each emission limitation and work practice standard that applies to you. To demonstrate continuous compliance with the emission limitations for CCU, you must meet each of the conditions specified in Tables 6 and 7 to subpart UUU (for metal HAP emissions) and Tables 13 and 14 to subpart UUU (for organic HAP emissions). For catalytic reforming units, you must meet each of the conditions in Tables 20 and 21 to subpart UUU (for organic HAP emissions) and Tables 27 and 28 to subpart UUU (for inorganic HAP emissions). For HAP emissions from sulfur recovery units, you must meet each of the conditions in Tables 34 and 35 to subpart UUU. Continuous compliance requirements for by-pass lines are in Table 39 to subpart UUU. We have revised the continuous compliance requirements to reflect the inclusion of new compliance options and monitoring requirements.

G. What Are the Notification, Recordkeeping, and Reporting Requirements?

Sections 63.1574 through 63.1576 of the final rule describe the requirements for notices, reports, and records. As proposed, you may be required to provide up to seven types of one-time notifications of applicability, intention to construct or reconstruct (including construction and startup dates), performance test dates, and compliance status.

We added a one-time notice for owner and operators to obtain an extension of compliance on the emission limitations for an existing CCU. To obtain the extension, the owner or operator must commit to adding hydrotreatment of the CCU feedstock to meet the final Tier 2 gasoline sulfur control standards (40 CFR part 80, subpart J).

We have streamlined the data requirements for the Notification of Compliance Status by removing certain information on operation, maintenance, and monitoring of affected sources and control systems. This information is to be included in a separate operation, maintenance, and monitoring plan submitted to your permitting authority for review and approval. The plan must cover each affected source, monitoring system or procedure, and control device or method. This plan also contains information such as the procedures you will use to monitor certain process or control device operating parameters, your quality assurance/quality control plan for continuous monitoring systems, and monitoring and maintenance schedules.

You must submit a semiannual compliance report containing the information specified in the rule. We revised the rule to require that you submit the report whether or not a deviation occurred during the reporting period. However, only summary information is required if no deviation occurred. As proposed, the rule does not require that you make emergency reports if actions taken are consistent with your startup, shutdown, and malfunction plan. If actions taken are not consistent with your plan, you must report the events and the response in your semiannual compliance report.

We also revised the proposed rule in response to comments to include provisions allowing the permitting authority to approve a period of planned routine maintenance for a refinery with multiple CCU served by a single wet scrubber emission control device. During this pre-approved time period, the refinery may take the control device and/or one of the process units out of service for maintenance while the remaining process unit(s) continues to operate. To obtain approval, you must submit a written request at least 6 months before the planned maintenance is scheduled to begin that contains the specified information and data. This includes:

- A description of the planned routine maintenance and why it is necessary;
- The date the maintenance will begin and end;
- A quantified estimate of the emissions (including HAP and criteria pollutants) that would be released with an analysis of the environmental benefits (i.e., emission reduction) that would result as opposed to delaying the maintenance until the next unit turnaround; and
- Actions to be taken to minimize emissions during the period.

You must include a copy of the request in the compliance report due for the period before the planned maintenance is scheduled to begin. In the compliance report due after the routine planned maintenance is complete, you must provide followup information on the maintenance including the number of hours the control device did not operate.

As proposed, you must keep records of the information and data required by § 63.10. This includes information and data you must record to show continuous compliance with the emission limitations and work practice standards. You also must keep records of any changes that affect the performance of your emission control system.

III. Summary of Environmental, Energy, and Economic Impacts

In response to comments, we revised the environmental impacts analysis in two major respects. First, we incorporated the most current (1998) facility-specific data available. We removed thermal (non-fluid) CCU from the analysis because these units are not subject to the final rule. Finally, we changed the HAP metal emission estimate methodology to allow more site-specific and unit-specific estimates based on equilibrium catalyst Ni concentrations. The revised environmental impacts analysis is available in the docket (Docket A–97–37).

A. What Are the Air Quality Impacts?

We estimate nationwide HAP emissions from process vents on CCU, catalytic reforming units, and sulfur recovery units at 12,700 tpy at the current level of control. Most of the 162 existing refineries will meet the requirements of the rule within 3 years for all affected sources. A small number of fluid CCU may be granted an extension of compliance to install hydrotreating unit(s). When this rule is fully implemented for all affected sources, nationwide HAP emissions will be reduced by about 11,000 tpy, an 87 percent reduction. Emissions of non-HAP such as VOC, CO, PM, and hydrogen sulfide will be reduced by about 55 percent from the current level of about 109,000 tpy. Little or no adverse secondary air impacts, water, or solid waste impacts are anticipated from the implementation of these standards.

B. What Are the Cost Impacts?

For most facilities, the costs of the rule will be incurred over the next 3 years. For a few facilities, the costs for fluid CCU will be incurred over the next 8 years as hydrotreatment units are installed to meet the requirements of Tier 2 and this rule. The nationwide capital and annualized costs of control equipment (1998 dollars) are estimated at $163 million and $37.2 million/yr, respectively. When fully implemented, this rule is expected to result in an overall annual national cost of $47.3 million. This includes a cost of $37.2 million for operation and maintenance of control devices and a monitoring, recordkeeping, and reporting cost of $10.1 million ($9.2 million for operation and maintenance of monitoring systems and $0.9 million for recordkeeping and reporting).

About 75 percent of the facilities are currently meeting at least one of the emission limits required under the final rule. The costs for this rule are for the small fraction of refineries not already meeting the standard. Based on our cost analysis, only 29 of the 124 CCU (23 percent) and 53 of the 185 sulfur recovery units (29 percent) will require new or upgraded controls. We estimate that 102 of the 177 catalytic reforming units will require new or upgraded control systems for HCl.

C. What Are the Economic Impacts?

The economic analysis for the proposed rule showed that the estimated price increase of refined petroleum products is 0.24 percent for refineries expected to incur compliance costs as a result of the rule. The estimated decrease in output is 0.17 percent of domestic refinery products. The decline in domestic production is due to higher imports and reduced quantity demanded due to higher prices. However, the value of domestic shipments is expected to increase by 0.07 percent because the estimated price increase more than offsets the lower production volume. Annual net exports (exports minus imports) are predicted to decrease by 0.76 percent. Employment in the industry is likely to decrease by 0.19 percent (136 jobs). No plant closures or significant regional impacts are expected. The impacts for the final rule are expected to be similar to those predicted for the proposed rule since the overall costs and number of affected facilities changed only slightly; both overall capital and annual costs and number of affected sources are estimated to be lower for the final rule. Therefore, a new economic analysis was not considered necessary and was not conducted for the final rule. For more information on the economic impact analysis methodology and results, consult the ''Economic Impact Analysis for the Petroleum Refinery NESHAP'' (Docket A–97–37).

D. What Are the Non-Air Health and Environmental Impacts?

The control requirements in this rule are based on air pollution control systems currently in widespread use throughout the petroleum refining industry. The reduction in emissions of HAP and criteria pollutants will result in reduced deposition to waterbodies. The reduction in VOC will reduce ozone formation resulting in less damage to agricultural crops and forests. A small increase in annual water usage, about 6.2 million gallons nationwide, will result from the increased use of wet scrubbers.

E. What Are the Energy Impacts?

The energy impacts also are about the same as the proposed rule. Once fully implemented, annual electric usage is expected to increase by about 67,000 megawatt-hours (MW-hrs), primarily for CCU and sulfur recovery unit control systems. National natural gas usage, primarily for sulfur recovery unit control systems, is expected to increase by about 1.5 billion cubic feet per year.

IV. Summary of Major Comments and Responses

A. Why Did We Extend the Compliance Date?

Comment: Several industry commenters urge us to defer or delay promulgation of the rule to allow time to coordinate with the Tier 2 gasoline sulfur control requirements and other rules such as the reformulated gasoline (RFG) Phase II standard and the revised national ambient air quality standard for PM. Their major concern is that plants will be required to install expensive controls that may be extraneous as soon as they are installed depending on the outcome of the Tier 2 and other rules.

Response: To comply with the Tier 2 gasoline sulfur control requirements, individual refineries ultimately will need to produce gasoline with an average sulfur content of 30 ppm. The majority of refineries will need to undertake major construction projects to meet this limit. Since these projects could require modification of CCU and other affected sources, we revised the schedule to delay promulgation of this rule until completion of the Tier 2, which was promulgated on February 10, 2000 (65 FR 6698).

For some refineries, the Tier 2 rule significantly impacts its CCU. These refineries will have construction projects adding hydrotreating of the feed to the CCU. For these refineries, we also extended the compliance date to allow more time for construction projects. We believe that this will encourage refinery

owners and operators to employ hydrotreating of the feedstock to comply with the Tier 2 rule. As discussed in more detail below, we believe that hydrotreating the feedstock has increased environmental benefits relative to other methods of reducing gasoline sulfur.

The extended compliance date for existing CCU is based on when and how a refinery produces low sulfur gasoline to meet the Tier 2 limit. Hydrotreating the feed to the CCU is one of the means of producing low sulfur gasoline. As discussed further below, hydrotreating the feedstock provides environmental benefits not realized with other methods of producing low sulfur gasoline. It is also, unfortunately, significantly more expensive than other methods of reducing the sulfur content of gasoline.

A refinery owner or operator must determine which technology to use in reducing gasoline sulfur to meet the fuel standards. A number of alternatives are available. Refineries may elect to hydrotreat after the CCU, to hydrotreat the CCU feedstock or to implement some other form of desulfurization technology. Hydrotreating the feedstock removes metals as well as sulfur. While hydrotreating the feedstock to the unit would allow greater flexibility within the overall refinery operations and would better position the refinery for any additional sulfur fuel standards that might be promulgated in the future, such as standards to reduce sulfur in diesel fuel (64 FR 26142, May 13, 1999), the cost of hydrotreating the CCU feed is considerably more than post-unit hydrotreating for desulfurization. Thus, despite the greater flexibility realized through hydrotreating the feedstock, there is an economic bias against its use to reduce gasoline sulfur to meet the fuel standards. We believe that this bias could increase substantially if we do not coordinate the compliance dates for these NESHAP and the Tier 2 rule. A substantial increase in the economic bias against hydrotreating the feedstock would likely result in less refineries implementing this method of reducing gasoline sulfur, thereby foregoing a potentially significant environmental benefit.

Some facilities will take longer than 3 years to comply with the Tier 2 standards. Should these facilities elect to install hydrotreatment units for the feed to the CCU, these new units will not be operating at the compliance date for the MACT standard, 3 years promulgation. To avoid non-compliance, an owner or operator would be required to install expensive PM controls to comply with the MACT standard. These new controls might then become redundant with the later startup of the hydrotreatment unit for the feed to the CCU. Therefore, if the owner or operator elects to install a hydrotreatment unit for the feed to the CCU, the MACT compliance date for the CCU becomes the same as the Tier 2 compliance date.

Linking the compliance dates for the two rules, in this particular instance for those refineries that elect to hydrotreat the CCU feedstock, will allow the refinery to coordinate both decision making and the actual construction projects and, thus, minimize disruption to the refinery operations. We believe that not linking the compliance dates for the two rules could result in an environmental benefit being foregone and that linking them will result in a net environmental benefit because the number of process unit shutdowns and startups would be minimized. Shutdowns and startups can result in considerably more emissions to the atmosphere than operations under normal conditions. An estimate of the emissions reductions that would result from linking the compliance dates for the CCU MACT standards and Tier 2 fuel standards is not possible at this time. This is because we lack information regarding how the refineries will choose to comply with the fuel standards and the uncertainties associated with startup and shutdown of these refinery operations.

Linking the MACT standards' compliance date to the Tier 2 fuel standards' compliance date (i.e., the date the refinery produces low sulfur gasoline at 30 ppm) will not result in an overall or complete delay of the MACT standards for all CCU. While we believe that linking the compliance dates will serve as an incentive to hydrotreat the CCU feedstock, we nevertheless expect that the majority of facilities will comply with the fuel standards without implementing CCU feedstock hydrotreating. In some cases, even those that elect to hydrotreat the feedstock will comply in 3 years or less to take advantage of the various pooling, averaging, banking, and trading options provided in the final Tier 2 standards. The remainder of refineries will begin production of low sulfur gasoline over the next 8-year period, although most are expected to be in full compliance (i.e., producing gasoline at the 30 ppm annual average) by the year 2006. In no case will refineries be allowed any later than December 31, 2009, to comply with the MACT standard for CCU, which corresponds to the final Tier 2 compliance date.

B. What Is the New Alternative Nickel Emission Limitation?

Comment: Several industry commenters urge us to include a rate-based Ni alternative of 0.007 lb Ni/1,000 lbs of coke burn-off in the final rule. According to the commenters, this approach avoids penalizing large units with low HAP emissions and equates to the NSPS for PM by using the highest or worst case Ni equilibrium concentration to convert PM to Ni. Most of the units that can comply with the PM limit cannot comply with the mass-based Ni limit due to their greater size. The commenters argue that larger units should not be subject to a more restrictive Ni limit than smaller units due to their greater processing capacity.

Environmental groups and one independent technical expert strongly disagree that we should provide the second Ni alternative at the level suggested by industry (i.e., 0.007 lb/1,000 lbs of coke burn-off). Commenters claim that this alternative is not technically equivalent to the MACT floor, is not protective of the environment as it is set at a level that allows all refiners to process heavy feeds with no control device, will actually increase emissions, and poses difficulties in ensuring continuous compliance.

Response: After careful review of all the information and data collected following proposal and received as part of the public comments, we decided to include an additional metal HAP alternative for CCU formatted in terms of Ni emissions per 1,000 lbs of coke burn-off. We concluded that this particular format (i.e., lb Ni/1,000 lbs of coke burn-off) does account for the wide variation of processing capacity within the industry and, with the new provisions added to the final rule, there are adequate means of ensuring continuous compliance.

We also concluded that the technical approach recommended by the industry commenters (using equilibrium catalyst Ni concentration to make a direct conversion of the PM emission standard to a Ni limit) is not appropriate. As discussed further in the Response to Comment Document, we must reject any method to derive a Ni emission limit in terms of lb Ni/1,000 lb coke burn-off based on the PM emission limit and some arbitrarily selected equilibrium catalyst concentration, whether it is a median, average or highest measured value. The emission limits calculated using these approaches do not correlate with actual emissions (in lb Ni/1,000 lbs coke burn-off) of any CCU, and the resulting Ni emission limits are not

''equivalent'' to the technology-based standard used as a basis of the PM emission limit that characterizes performance of the MACT floor technologies. This is because the equilibrium catalyst Ni concentration in no way reflects the performance of the MACT floor technology, as PM emissions. The equilibrium catalyst Ni concentration of a CCU is dependent on a complex mixture of operating and economic considerations; it is not totally dictated by the variability of Ni in the crude oil or the unit feed. In addition, we have no data or information to relate the equilibrium catalyst metals concentration to the best performing facilities (i.e., the equilibrium catalyst metal concentration does not reflect or relate to control device performance).

Although we do not accept the recommended approach in determining the emission limit based on an equilibrium catalyst conversion factor, we feel that the alternative format in terms of lb Ni/1,000 lb of coke burn-off has considerable merit. This particular format allows for flexible compliance on the part of the plant owner/operator. An emission limit expressed in this format can be met by using front-end hydrotreating, in-process operational changes, or end of pipe add-on controls alone or in combination.

In addition, to comply with the Tier 2 fuel standards, an owner or operator must choose one of a number of available methods of reducing sulfur in gasoline. One of those methods is to hydrotreat CCU feedstocks. This method of compliance has environmental benefits not realized with other methods. This is because feedstock hydrotreating has the potential to reduce Ni emissions from CCU, depending on what operating changes are made in the catalyst regeneration processes in conjunction with the feedstock hydrotreating. We believe that a Ni emission limit, in terms of lb Ni/1,000 lbs coke burn-off, has a potential to encourage feedstock hydrotreating as a means to comply with this limit and the Tier 2 fuel standards.

To determine an appropriate emission limit, we examined the available emissions data for the top performing CCU in terms of lb Ni emissions/1,000 lb coke burn-off rate. Although the currently available source test data are somewhat limited and are generally assumed to be representative of the lowest Ni emitters across the industry, they do allow an analysis following the basic criteria established for a MACT floor determination.

Through review of the emission data, we found that the average emission rates, as well as each individual test run result for the top-ranked CCU, are all below 0.001 lb Ni/1,000 lbs coke burn-off. Based on our data analysis, we determined that the emission limit of 0.001 lb Ni/1,000 lbs coke burn-off adequately characterizes performance of the MACT floor technology while taking into account process and measurement variability. This analysis provides an emission limit in the alternative format (Ni emissions per unit coke burn) that is reflective of the MACT floor technology. This emission limit is included in the final rule as an alternative format to the PM or Ni lb/hr limits that were also selected to characterize the performance of the MACT floor technologies. The determination of the emission limit formatted in terms of coke burn-off that is used to characterize the MACT floor technology is discussed in more detail in the Response to Comments Document (Docket A–97–36).

C. Why Did We Not Change the Proposed Nickel Emission Limitation?

Comment: Three commenters believe we should relax the proposed Ni emission limitation (lbs/hr) for metal HAP emissions from CCU. They question the method we used to determine the numerical emission limit that characterizes the MACT floor technology in this particular format. According to the commenters, our variability analysis is flawed for several reasons.

- We used the z-statistic rather than the student's t-statistic, which is appropriate for small samples from populations.
- We used the average relative standard deviation instead of the more representative maximum relative standard deviation.
- The analysis includes data known to be false or problematic.
- We used the 95 percent confidence level rather than the 98 percent interval, which the commenter claims is an EPA precedent.

The commenters also believe the level of emissions that would be excluded by the higher limit is trivial and of little environmental significance. Raising the limit would allow some refineries to avoid installing controls that are not cost effective and provide real *de minimus* relief. The commenters support a standard of 760 lbs/yr based on their approach.

Response: We acknowledge the quality assurance concerns regarding the results of certain Ni emission measurements and the use of larger confidence intervals about the average emission value in setting an emission limit that reflects use of the MACT floor technology. However, we also believe that the analysis must use the average of the top 12 percent or the 6th percentile facility, rather than the emissions of the 12th percentile facility. There are 124 fluid CCU in the U.S. and its territories; the 6th percentile of the industry would be represented by the emissions reductions achieved by the 7th and 8th ranked units. Reanalysis of the data, considering the reviewer's comments on the statistical approach while using the 6th percentile unit, yields an emission limit nearly identical to the proposed limit.

In response to this comment, we examined the emission rates of the top performing unit for which we have documented source test results. We found that the average emission rates, as well as each individual test run result for the top eight ranked units, are all below 200 lbs/yr. The 9th and 10th ranked units have similar average emission rates, but a wider fluctuation in the individual test run results. From the test data available, we determined that the proposed emission limit of 250 lbs/yr adequately characterizes the performance of the MACT floor technologies while taking into account process variability. For these reasons, we made no change in the proposed Ni lb/hr emission limit.

D. How Did We Change the Proposed Monitoring Requirements?

Comment: Environmental groups urge us to require continuous emission monitoring systems for HCl, TRS, and either CO, TOC, or total hydrocarbons (THC) for existing and new affected sources. They say these systems are commercially available, feasible (as stated in the background information document), ensure standards are met at all times, and provide better HAP monitoring. They say the cost of these systems is decreasing, and they may no longer be too costly. Also, the continuous monitoring of a process allows the operator greater flexibility in operation which could result in increased output, improved efficiency, and overall cost savings. Two commenters specifically request continuous emission monitoring systems for TRS limits. Due to the TRS emissions from refineries and numerous exceedances, more accurate information than operating parameter values is needed to assess compliance.

Response: We agree with the commenters' recommendations that the NSPS experience with continuous emission monitoring systems demonstrates their technical and economic feasibility for this industry,

provides better data, and needs to be encouraged.

In determining monitoring requirements, we looked at the various options. One of the options examined was requiring continuous emission or opacity monitors for all affected sources under this rule. We did not select this option because of the high capital and operating costs.

However, in response to these comments, we reexamined these options to look for ways to encourage their use or require their use if needed. As a result, we included options in the rule allowing plants to choose to comply with the NSPS monitoring requirements.

We also included requirements in the rule for continuous opacity monitoring systems for catalyst regenerator vents on any CCU with a fresh feed capacity greater than 20,000 barrels per day (and not using wet scrubbers). We also added continuous opacity monitors as a monitoring option for smaller units. Continuous opacity monitoring systems are already required for the larger units under Federal/State implementation plan requirements in 40 CFR part 51, appendix P; therefore, these costs are not attributable to the standard. We did not require a continuous opacity monitoring system for a unit with a wet scrubber because of interference from water vapor in wet scrubber exhaust gases. For these units, parameter monitoring is still the only monitoring method.

A continuous emission monitoring system for TRS or reduced sulfur emissions is also required in the final rule for any sulfur recovery unit with no add-on control device. The cost of continuous emission monitoring systems for these units is reasonable and does not pose any economic hardship for plants that do not use a control device. For units with add-on control devices, we are confident that the process or control device parameter monitoring allowed in place of continuous emission or opacity monitoring systems provides adequate assurance of continuous compliance.

V. Administrative Requirements

A. Executive Order 12866, Regulatory Planning and Review

Under Executive Order 12866 (58 FR 5173, October 4, 1993), the EPA must determine whether the regulatory action is ''significant'' and therefore subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The Executive Order defines a ''significant regulatory action'' as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlement, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, OMB has notified EPA that it considers this a ''significant regulatory action'' within the meaning of the Executive Order. EPA has submitted this action to OMB for review. Changes made in response to OMB suggestions or recommendations are documented in the public record.

B. Executive Order 13132, Federalism

Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.''

Under section 6 of Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. The EPA also may not issue a regulation that has federalism implications and that preempts State law, unless the EPA consults with State and local officials early in the process of developing the proposed regulation.

This final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. None of the affected facilities are owned or operated by State governments. Thus, the requirements of section 6 of the Executive Order do not apply to this rule.

C. Executive Order 13175, Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled ''Consultation and Coordination with Indian Tribal Governments'' (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure ''meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.'' ''Policies that have tribal implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes.''

This final rule does not have tribal implications. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to this rule.

D. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be ''economically significant,'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the EPA must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the EPA.

This final rule is not subject to Executive Order 13045 because it is not an economically significant regulatory action as defined by Executive Order 12866. The EPA interprets Executive Order 13045 as applying only to

regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. These final NESHAP are not subject to Executive Order 13045 because they are based on technology performance and not on health or safety risks.

E. Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use

This rule is not a ''significant energy action'' as defined in Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355 (May 22, 2001)) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

F. Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, the EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures by State, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires the EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least-burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows the EPA to adopt an alternative other than the least-costly, most cost-effective, or least-burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before the EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that this rule does not contain a Federal mandate that may result in estimated costs of $100 million or more to either State, local, or tribal governments, in the aggregate, or to the private sector in any 1 year. The rule does not significantly or uniquely impact small governments because it contains no requirements that apply to such governments or impose obligations upon them. Thus, the requirements of the UMRA do not apply to this rule.

G. Regulatory Flexibility Act (RFA), As Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 et seq.

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with this final rule. For the purposes of assessing the impacts of today's rule on small entities, small entities are defined as: (1) A firm having no more than 1,500 employees and no more than 75,000 barrels per day capacity of petroleum-based inputs, including crude oil or bona fide feedstocks; [1] according to Small Business Administration (SBA) size standards established under the North American Industry Classification System (NAICS); (2) a small government jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. Small entities in NAICS 32411 only will be affected.

After considering the economic impacts of today's final rule on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. We have determined that nine of the 23 small refiners own one or more of the affected sources. None of the 9 small refiners will need additional air pollution control equipment for CCU or sulfur recovery units. Only those costs for monitoring, reporting, and recordkeeping would be incurred by these firms. Six small refiners will need to add control equipment for catalytic reforming units. Annual total compliance costs for the nine affected small refiners would be less than 0.01 percent of estimated revenues. For more information, please consult the public docket for this final rule.

Although this final rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of this rule on small entities. As discussed in the preamble to the proposed rule, EPA met with representatives of five small refineries and listened to their concerns. In response, we exercised the maximum degree of flexibility in minimizing impacts on small business through the alternative Nickel standard and subcategorization for catalytic reforming units. The rule reflects the minimum level of control allowed under the CAA. Since proposal, we have further reduced the economic impact on all refineries, including small businesses, by subcategorizing CCU and, in appropriate circumstances, extending the compliance date to coincide with the Tier 2 gasoline sulfur control rule.

H. Paperwork Reduction Act

The information collection requirements in this final rule are being submitted for approval to OMB under the requirements of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* An information collection request (ICR) document has been prepared by EPA (ICR No. 1844.01), and a copy may be obtained from Sandy Farmer, Office of Environmental Information, Collection Strategies Division, U.S. Environmental Protection Agency (2137), 1200 Pennsylvania Avenue, NW., Washington, DC 20460, or by calling (202) 260–2740.

The information collection requirements in the final rule include mandatory notifications, records, and reports required by the NESHAP General Provisions (40 CFR part 63, subpart A). These information requirements are needed to confirm the compliance status of major sources, to identify any non-major sources not subject to the standard and any new or reconstructed sources subject to the standards, to confirm that emission control devices are being properly operated and maintained, and to ensure that the standards are being achieved. Based on the recorded and reported information, EPA can decide which facilities, records, or processes should be inspected. These recordkeeping and reporting requirements are specifically authorized under section 114 of the CAA (42 U.S.C. 7414). All information submitted to EPA for which a claim of

[1] Capacity includes owned or leased facilities as well as facilities under a processing agreement or an agreement such as an exchange agreement or a throughput. The total product to be delivered under the contract must be at least 90 percent refined by the successful bidder from either crude oil or bona fide feedstocks.

confidentiality is made will be safeguarded according to EPA policies in 40 CFR part 2, subpart B.

The annual public reporting and recordkeeping burden for this collection of information (averaged over the first 3 years after the effective date of this rule) is estimated to total 19,428 labor hours per year at a total annual cost of $1.3 million. This estimate includes initial notifications, a performance test, one-time preparation of a startup, shutdown, and malfunction plan and operation, maintenance, and monitoring plan, semiannual deviation summary reports, and recordkeeping for 132 plants expected to be subject to the rule during this ICR clearance period. Total capital costs associated with the monitoring equipment over the 3-year period of the ICR is estimated at $15.8 million; the annualized cost of capital is estimated at $1.1 million. This estimate includes the capital and startup costs associated with installation of monitoring equipment.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control number for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

I. National Technology Transfer and Advancement Act of 1995

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113, § 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impracticable. Voluntary consensus standards are technical standards (e.g., material specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTTA requires Federal agencies to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

Consistent with the NTTAA, we conducted searches to identify voluntary consensus standards for use in emissions testing. The search for emissions testing procedures identified 34 voluntary consensus standards that appeared to have possible use in lieu of EPA standard reference methods. After reviewing the available standards, we determined that 26 of the candidate consensus standards identified for measuring emissions of the HAP or surrogates subject to the emission limitations in the rule would not be practical due to lack of equivalency, documentation, validation data, and other important technical and policy considerations. Eight of the remaining candidate consensus are under development or currently under EPA review. We plan to follow, review, and consider adopting these standards after their development and we complete further review.

One consensus standard, ASTM D6216–98, is practical for EPA use in Performance Specification 1 (PS–1) in 40 CFR part 60, appendix B, ''Specifications and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources.'' This ASTM method can best be used in place of the design specification verification procedures currently in sections 5 and 6 of PS–1. We proposed ASTM D6216–98 for incorporation by reference in another rulemaking (63 FR 50824, September 23, 1998). Comments from the proposal have been addressed and we expect to complete this action in the near future. For these reasons, we do not propose to adopt ASTM D6216–98 in lieu of PS–1 requirements as it would be impractical to us to act independently from the other rulemaking already undergoing promulgation, and because ASTM D6216 does not address all the requirements specified in PS–1.

Tables 4 and 40 in subpart UUU list the EPA test methods and performance specifications included in this rule. Most of these methods and performance specifications have been used by States and industry for more than 10 years. Nevertheless, as provided by § 63.7(f) of the NESHAP General Provisions (40 CFR part 63, subpart A), any State or facility may apply to EPA for permission to use an alternative method in place of any of the EPA test methods or performance specifications listed in the rule.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. This rule is not a ''major rule'' as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Petroleum refineries.

Dated: March 19, 2002.

Christine Todd Whitman,

Administrator.

For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63—[AMENDED]

1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

2. Part 63 is amended by adding subpart UUU to read as follows:

Subpart UUU—National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units

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What This Subpart Covers

§ 63.1560 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (HAP) emitted from petroleum refineries. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards.

§ 63.1561 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a petroleum refinery that is located at a major source of HAP emissions.

(1) A petroleum refinery is an establishment engaged primarily in petroleum refining as defined in the Standard Industrial Classification (SIC) code 2911 and the North American Industry Classification (NAIC) code 32411, and used mainly for:

(i) Producing transportation fuels (such as gasoline, diesel fuels, and jet fuels), heating fuels (such as kerosene, fuel gas distillate, and fuel oils), or lubricants;

(ii) Separating petroleum; or

(iii) Separating, cracking, reacting, or reforming an intermediate petroleum

stream, or recovering a by-product(s) from the intermediate petroleum stream (e.g., sulfur recovery).

(2) A major source of HAP is a plant site that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (10 tons) or more per year or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year.

(b) [Reserved]

§ 63.1562 What parts of my plant are covered by this subpart?

(a) This subpart applies to each new, reconstructed, or existing affected source at a petroleum refinery.

(b) The affected sources are:

(1) Each catalytic cracking unit that regenerates catalyst.

(2) Each catalytic reforming unit that regenerates catalyst.

(3) Each sulfur recovery unit and the tail gas treatment unit serving it.

(4) Each bypass line serving a new, existing, or reconstructed catalytic cracking unit, catalytic reforming unit, or sulfur recovery unit. This means each vent system that contains a bypass line (e.g., ductwork) that could divert an affected vent stream away from a control device used to comply with the requirements of this subpart.

(c) An affected source is a new affected source if you commence construction of the affected source after September 11, 1998, and you meet the applicability criteria in § 63.1561 at the time you commenced construction.

(d) Any affected source is reconstructed if you meet the criteria in § 63.2.

(e) An affected source is existing if it is not new or reconstructed.

(f) This subpart does not apply to:

(1) A thermal catalytic cracking unit.

(2) A sulfur recovery unit that does not recover elemental sulfur or where the modified reaction is carried out in a water solution which contains a metal ion capable of oxidizing the sulfide ion to sulfur (e.g., the LO–CAT II process).

(3) A redundant sulfur recovery unit not located at a petroleum refinery and used by the refinery only for emergency or maintenance backup.

(4) Equipment associated with bypass lines such as low leg drains, high point bleed, analyzer vents, open-ended valves or lines, or pressure relief valves needed for safety reasons.

(5) Gaseous streams routed to a fuel gas system.

§ 63.1563 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to the requirements in paragraphs (a)(1) and (2) of this section.

(1) If you startup your affected source before April 11, 2002, then you must comply with the emission limitations and work practice standards for new and reconstructed sources in this subpart no later than April 11, 2002.

(2) If you startup your affected source after April 11, 2002, you must comply with the emission limitations and work practice standards for new and reconstructed sources in this subpart upon startup of your affected source.

(b) If you have an existing affected source, you must comply with the emission limitations and work practice standards for existing affected sources in this subpart by no later than April 11, 2005 except as specified in paragraph (c) of this section.

(c) We will grant an extension of compliance for an existing catalytic cracking unit allowing additional time to meet the emission limitations and work practice standards for catalytic cracking units in §§ 63.1564 and 63.1565 if you commit to hydrotreating the catalytic cracking unit feedstock and to meeting the emission limitations of this subpart on the same date that your facility meets the final Tier 2 gasoline sulfur control standard (40 CFR part 80, subpart J). To obtain an extension, you must submit a written notification to your permitting authority according to the requirements in § 63.1574(e). Your notification must include the information in paragraphs (c)(1) and (2) of this section.

(1) Identification of the affected source with a brief description of the controls to be installed (if needed) to comply with the emission limitations for catalytic cracking units in this subpart.

(2) A compliance schedule, including the information in paragraphs (c)(2)(i) through (iv) of this section.

(i) The date by which onsite construction or the process change is to be initiated.

(ii) The date by which onsite construction or the process change is to be completed.

(iii) The date by which your facility will achieve final compliance with both the final Tier 2 gasoline sulfur control standard as specified in § 80.195, and the emission limitations and work practice standards for catalytic cracking units in this subpart. In no case will your permitting authority grant an extension beyond the date you are required to meet the Tier 2 gasoline sulfur control standard or December 31, 2009, whichever comes first. If you don't comply with the emission limitations and work practice standards for existing catalytic cracking units by the specified date, you will be out-of-compliance with the requirements for catalytic cracking units beginning April 11, 2005.

(iv) A brief description of interim emission control measures that will be taken to ensure proper operation and maintenance of the process equipment during the period of the compliance extension.

(d) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the requirements in paragraphs (d)(1) and (2) of this section apply.

(1) Any portion of the existing facility that is a new affected source or a new reconstructed source must be in compliance with the requirements of this subpart upon startup.

(2) All other parts of the source must be in compliance with the requirements of this subpart by no later than 3 years after it becomes a major source or, if applicable, the extended compliance date granted according to the requirements in paragraph (c) of this section.

(e) You must meet the notification requirements in § 63.1574 according to the schedule in § 63.1574 and in 40 CFR part 63, subpart A. Some of the notifications must be submitted before the date you are required to comply with the emission limitations and work practice standards in this subpart.

Catalytic Cracking Units, Catalytic Reforming Units, Sulfur Recovery Units, and Bypass Lines

§ 63.1564 What are my requirements for metal HAP emissions from catalytic cracking units?

(a) *What emission limitations and work practice standards must I meet?* You must:

(1) Meet each emission limitation in Table 1 of this subpart that applies to you. If your catalytic cracking unit is subject to the NSPS for PM in § 60.102 of this chapter, you must meet the emission limitations for NSPS units. If your catalytic cracking unit isn't subject to the NSPS for PM, you can choose from the four options in paragraphs (a)(1)(i) through (iv) of this section:

(i) You can elect to comply with the NSPS requirements (Option 1);

(ii) You can elect to comply with the PM emission limit (Option 2);

(iii) You can elect to comply with the Nickel (Ni) lb/hr emission limit (Option 3); or

(iv) You can elect to comply with the Ni lb/1,000 lbs of coke burn-off emission limit (Option 4).

(2) Comply with each operating limit in Table 2 of this subpart that applies to you.

(3) Prepare an operation, maintenance, and monitoring plan according to the requirements in § 63.1574(f) and operate at all times according to the procedures in the plan.

(4) The emission limitations and operating limits for metal HAP emissions from catalytic cracking units required in paragraphs (a)(1) and (2) of this section do not apply during periods of planned maintenance preapproved by the applicable permitting authority according to the requirements in § 63.1575(j).

(b) *How do I demonstrate initial compliance with the emission limitations and work practice standard?* You must:

(1) Install, operate, and maintain a continuous monitoring system(s) according to the requirements in § 63.1572 and Table 3 of this subpart.

(2) Conduct a performance test for each catalytic cracking unit not subject to the NSPS for PM according to the requirements in § 63.1571 and under the conditions specified in Table 4 of this subpart.

(3) Establish each site-specific operating limit in Table 2 of this subpart that applies to you according to the procedures in Table 4 of this subpart.

(4) Use the procedures in paragraphs (b)(4)(i) through (iv) of this section to determine initial compliance with the emission limitations.

(i) If you elect Option 1 in paragraph (a)(1)(i) of ths section, the NSPS requirements, compute the PM emission rate (lb/1,000 lbs of coke burn-off) for each run using Equations 1, 2, and 3 (if applicable) of this section as follows:

$$R_c = K_1 Q_r \left(\%CO_2 + \%CO\right) + K_2 Q_a - K_3 Q_r \left[\left(\%CO/2\right) + \%CO_2 + \%O_2\right] + K_3 Q_{oxy}\left(\%O_{xy}\right) \qquad \text{(Eq. 1)}$$

Where:

R_c = Coke burn-off rate, kg/hr (lb/hr);

Q_r = Volumetric flow rate of exhaust gas from catalyst regenerator before adding air or gas streams. Example: You may measure after an electrostatic precipitator, but you must measure before a carbon monoxide boiler, dscm/min (dscf/min);

Q_a = Volumetric flow rate of air to catalytic cracking unit catalyst regenerator, as determined from instruments in the catalytic cracking unit control room, dscm/min (dscf/min);

$\%CO_2$ = Carbon dioxide concentration in regenerator exhaust, percent by volume (dry basis);

%CO = Carbon monoxide concentration in regenerator exhaust, percent by volume (dry basis);

$\%O_2$ = Oxygen concentration in regenerator exhaust, percent by volume (dry basis);

K_1 = Material balance and conversion factor, 0.2982 (kg-min)/(hr-dscm-%) (0.0186 (lb-min)/(hr-dscf-%));

K_2 = Material balance and conversion factor, 2.088 (kg-min)/(hr-dscm) (0.1303 (lb-min)/(hr-dscf));

K_3 = Material balance and conversion factor, 0.0994 (kg-min)/(hr-dscm-%) (0.0062 (lb-min)/(hr-dscf-%));

Q_{oxy} = Volumetric flow rate of oxygen-enriched air stream to regenerator, as determined from instruments in the catalytic cracking unit control room, dscm/min (dscf/min); and

$\%O_{xy}$ = Oxygen concentration in oxygen-enriched air stream, percent by volume (dry basis).

$$E = \frac{K \times C_s \times Q_{sd}}{R_c} \qquad \text{(Eq. 2)}$$

Where:

E = Emission rate of PM, kg/1,000 kg (lb/1,000 lb) of coke burn-off;

C_s = Concentration of PM, g/dscm (lb/dscf);

Q_{sd} = Volumetric flow rate of the catalytic cracking unit catalyst regenerator flue gas as measured by Method 2 in appendix A to part 60 of this chapter, dscm/hr (dscf/hr);

R_c = Coke burn-off rate, kg coke/hr (1,000 lb coke/hr); and

K = Conversion factor, 1.0 (kg^2/g)/(1,000 kg) (1,000 lb/(1,000 lb)).

$$E_s = 1.0 + A\left(H/R_c\right)K' \qquad \text{(Eq. 3)}$$

Where:

E_s = Emission rate of PM allowed, kg/1,000 kg (1b/1,000 lb) of coke burn-off in catalyst regenerator;

1.0 = Emission limitation, kg coke/1,000 kg (lb coke/1,000 lb);

A = Allowable incremental rate of PM emissions, 0.18 g/million cal (0.10 lb/million Btu); and

H = Heat input rate from solid or liquid fossil fuel, million cal/hr (million Btu/hr). Make sure your permitting authority approves procedures for determining the heat input rate.

R_c = Coke burn-off rate, kg coke/hr (1,000 lb coke/hr) determined using Equation 1 of this section; and

K′ = Conversion factor to units to standard, 1.0 (kg^2/g)/(1,000 kg) (10^3 lb/(1,000 lb)).

(ii) If you elect Option 2 in paragraph (a)(1)(ii) of this section, the PM emission limit, compute your PM emission rate (lb/1,000 lbs of coke burn-off) using Equations 1 and 2 of this section and your site-specific opacity operating limit (if you use a continuous opacity monitoring system) using Equation 4 of this section as follows:

$$\text{Opacity Limit} = \text{Opacity}_{st} \times \left(\frac{1\ \text{lb/klb coke burn}}{\text{PMEmR}_{st}}\right) \qquad \text{(Eq. 4)}$$

Where:

Opacity limit = Maximum permissible hourly average opacity, percent, or 10 percent, whichever is greater;

Opacity_{st} = Hourly average opacity measured during the source test runs, percent; and

PMEmR_{st} = PM emission rate measured during the source test, lb/1,000 lbs coke burn.

$$E_{Ni_1} = C_{Ni} \times Q_{sd} \qquad \text{(Eq. 5)}$$

(iii) If you elect Option 3 in paragraph (a)(1)(iii) of this section, the Ni lb/hr emission limit, compute your Ni emission rate using Equation 5 of this section and your site-specific Ni operating limit (if you use a continuous opacity monitoring system) using Equations 6 and 7 of this section as follows:

Where:

E_{Ni1} = Mass emission rate of Ni, mg/hr (lb/hr); and

C_{Ni} = Ni concentration in the catalytic cracking unit catalyst regenerator flue gas as measured by Method 29 in appendix A to part 60 of this chapter, mg/dscm (lbs/dscf).

$$\text{Opacity}_1 = \frac{13\ \text{g Ni/hr}}{\text{NiEmR1}_{st}} \times \text{Opacity}_{st} \qquad \text{(Eq. 6)}$$

Where:

Opacity_1 = Opacity value for use in Equation 7 of this section, percent, or 10 percent, whichever is greater; and

NiEmR1_{st} = Average Ni emission rate calculated as the arithmetic average Ni emission rate using Equation 5 of this section for each of the performance test runs, g Ni/hr.

$$\text{Ni Operating Limit}_1 = \text{Opacity}_1 \times Q_{mon,st} \times \text{E-Cat}_{st} \qquad \text{(Eq. 7)}$$

Where:

Ni operating limit_1 = Maximum permissible hourly average Ni operating limit, percent-acfm-ppmw, i.e., your site-specific Ni operating limit;

$Q_{mon,st}$ = Hourly average actual gas flow rate as measured by the continuous parameter monitoring system during the performance test or using the alternative procedure in § 63.1573, acfm; and

E–Cat_{st} = Ni concentration on equilibrium catalyst measured during source test, ppmw.

(iv) If you elect Option 4 in paragraph (a)(1)(iv) of this section, the Ni lbs/1,000 lbs of coke burn-off emission limit, compute your Ni emission rate using Equations 1 and 8 of this section and your site-specific Ni operating limit (if you use a continuous opacity monitoring system) using Equations 9 and 10 of this section as follows:

$$E_{Ni_2} = \frac{C_{Ni} \times Q_{sd}}{R_c} \qquad \text{(Eq. 8)}$$

Where:

E_{Ni2} = Normalized mass emission rate of Ni, mg/kg coke (lb/1,000 lbs coke).

$$\text{Opacity}_2 = \frac{1.0\ \text{mg/kg coke}}{\text{NiEmR2}_{st}} \times \text{Opacity}_{st} \qquad \text{(Eq. 9)}$$

Where:

Opacity_2 = Opacity value for use in Equation 10 of this section, percent, or 10 percent, whichever is greater; and

NiEmR2_{st} = Average Ni emission rate calculated as the arithmetic average Ni emission rate using Equation 8 of this section for each of the performance test runs, mg/kg coke.

$$\text{Ni Operating Limit}_2 = \text{Opacity}_2 \times \text{E-Cat}_{st} \times \frac{Q_{mon,st}}{R_{c,st}} \qquad \text{(Eq. 10)}$$

Where:

Ni operating limit_2 = Maximum permissible hourly average Ni operating limit, percent-ppmw-acfm-hr/kg coke, i.e., your site-specific Ni operating limit; and

$R_{c,st}$ = Coke burn rate from Equation 1 of this section, as measured during the initial performance test, kg coke/hr.

(5) Demonstrate initial compliance with each emission limitation that applies to you according to Table 5 of this subpart.

(6) Demonstrate initial compliance with the work practice standard in paragraph (a)(3) of this section by submitting your operation, maintenance, and monitoring plan to your permitting authority as part of your Notification of Compliance Status.

(7) Submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.1574.

(c) *How do I demonstrate continuous compliance with the emission limitations and work practice standards?* You must:

(1) Demonstrate continuous compliance with each emission limitation in Tables 1 and 2 of this subpart that applies to you according to the methods specified in Tables 6 and 7 of this subpart.

(2) Demonstrate continuous compliance with the work practice standard in paragraph (a)(3) of this section by maintaining records to document conformance with the procedures in your operation, maintenance, and monitoring plan.

(3) If you use a continuous opacity monitoring system and elect to comply with Option 3 in paragraph (a)(1)(iii) of this section, determine continuous compliance with your site-specific Ni operating limit by using Equation 11 of this section as follows:

$$\text{Ni Operating Value}_1 = \text{Opacity} \times Q_{mon} \times \text{E-Cat} \qquad \text{(Eq. 11)}$$

Where:

Ni operating value$_1$ = Maximum permissible hourly average Ni standard operating value, %-acfm-ppmw;

Opacity = Hourly average opacity, percent;

Q_{mon} = Hourly average actual gas flow rate as measured by continuous parameter monitoring system or calculated by alternative procedure in § 63.1573, acfm; and

E-Cat = Ni concentration on equilibrium catalyst from weekly or more recent measurement, ppmw.

(4) If you use a continuous opacity monitoring system and elect to comply with Option 4 in paragraph (a)(1)(iv) of this section, determine continuous compliance with your site-specific Ni operating limit by using Equation 12 of this section as follows:

$$\text{Ni Operating Value}_2 = \frac{\text{Opacity} \times \text{E-Cat} \times Q_{mon}}{R_c} \qquad \text{(Eq. 12)}$$

Where:

Ni operating value$_2$ = Maximum permissible hourly average Ni standard operating value, percent-acfm-ppmw-hr/kg coke.

§ 63.1565 What are my requirements for organic HAP emissions from catalytic cracking units?

(a) *What emission limitations and work practice standards must I meet?* You must:

(1) Meet each emission limitation in Table 8 of this subpart that applies to you. If your catalytic cracking unit is subject to the NSPS for carbon monoxide (CO) in § 60.103 of this chapter, you must meet the emission limitations for NSPS units. If your catalytic cracking unit isn't subject to the NSPS for CO, you can choose from the two options in paragraphs (a)(1)(i) through (ii) of this section:

(i) You can elect to comply with the NSPS requirements (Option 1); or

(ii) You can elect to comply with the CO emission limit (Option 2).

(2) Comply with each site-specific operating limit in Table 9 of this subpart that applies to you.

(3) Prepare an operation, maintenance, and monitoring plan according to the requirements in § 63.1574(f) and operate at all times according to the procedures in the plan.

(4) The emission limitations and operating limits for organic HAP emissions from catalytic cracking units required in paragraphs (a)(1) and (2) of this section do not apply during periods of planned maintenance preapproved by the applicable permitting authority according to the requirements in § 63.1575(j).

(b) *How do I demonstrate initial compliance with the emission limitations and work practice standards?* You must:

(1) Install, operate, and maintain a continuous monitoring system according to the requirements in § 63.1572 and Table 10 of this subpart. Except:

(i) Whether or not your catalytic cracking unit is subject to the NSPS for CO in § 60.103 of this chapter, you don't have to install and operate a continuous emission monitoring system if you show that CO emissions from your vent average less than 50 parts per million (ppm), dry basis. You must get an exemption from your permitting authority, based on your written request. To show that the emissions average is less than 50 ppm (dry basis), you must continuously monitor CO emissions for 30 days using a CO continuous emission monitoring system that meets the requirements in § 63.1572.

(ii) If your catalytic cracking unit isn't subject to the NSPS for CO, you don't have to install and operate a continuous emission monitoring system or a continuous parameter monitoring system if you vent emissions to a boiler (including a ''CO boiler'') or process heater that has a design heat input capacity of at least 44 megawatts (MW).

(iii) If your catalytic cracking unit isn't subject to the NSPS for CO, you don't have to install and operate a continuous emission monitoring system or a continuous parameter monitoring system if you vent emissions to a boiler or process heater in which all vent streams are introduced into the flame zone.

(2) Conduct each performance test for a catalytic cracking unit not subject to the NSPS for CO according to the requirements in § 63.1571 and under the conditions specified in Table 11 of this subpart.

(3) Establish each site-specific operating limit in Table 9 of this subpart that applies to you according to the procedures in Table 11 of this subpart.

(4) Demonstrate initial compliance with each emission limitation that applies to you according to Table 12 of this subpart.

(5) Demonstrate initial compliance with the work practice standard in paragraph (a)(3) of this section by submitting the operation, maintenance, and monitoring plan to your permitting authority as part of your Notification of Compliance Status according to § 63.1574.

(6) Submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.1574.

(c) *How do I demonstrate continuous compliance with the emission limitations and work practice standards?* You must:

(1) Demonstrate continuous compliance with each emission limitation in Tables 8 and 9 of this subpart that applies to you according to the methods specified in Tables 13 and 14 of this subpart.

(2) Demonstrate continuous compliance with the work practice standard in paragraph (a)(3) of this section by complying with the procedures in your operation, maintenance, and monitoring plan.

§ 63.1566 What are my requirements for organic HAP emissions from catalytic reforming units?

(a) *What emission limitations and work practice standards must I meet?* You must:

(1) Meet each emission limitation in Table 15 of this subpart that applies to you. You can choose from the two options in paragraphs (a)(1)(i) through (ii) of this section:

(i) You can elect to vent emissions of total organic compounds (TOC) to a flare that meets the control device requirements in § 63.11(b) (Option 1); or

(ii) You can elect to use a control device to meet a TOC percent reduction standard or concentration limit, whichever is less stringent (Option 2).

(2) Comply with each site-specific operating limit in Table 16 of this subpart that applies to you.

(3) The emission limitations in Tables 15 and 16 of this subpart apply to emissions from catalytic reforming unit process vents that occur during depressuring and purging operations. These process vents include those used during unit depressurization, purging, coke burn, catalyst rejuvenation, and reduction or activation purge.

(4) The emission limitations in Tables 15 and 16 of this subpart do not apply to emissions from process vents during depressuring and purging operations when the reactor vent pressure is 5 pounds per square inch gauge (psig) or less.

(5) Prepare an operation, maintenance, and monitoring plan according to the requirements in § 63.1574(f) and operate at all times according to the procedures in the plan.

(b) *How do I demonstrate initial compliance with the emission limitations and work practice standard?* You must:

(1) Install, operate, and maintain a continuous monitoring system(s) according to the requirements in § 63.1572 and Table 17 of this subpart.

(2) Conduct each performance test for a catalytic reforming unit according to the requirements in § 63.1571 and under the conditions specified in Table 18 of this subpart.

(3) Establish each site-specific operating limit in Table 16 of this subpart that applies to you according to the procedures in Table 18 of this subpart.

(4) Use the procedures in paragraph (b)(4)(i) or (ii) of this section to determine initial compliance with the emission limitations.

(i) If you elect the percent reduction standard under Option 2, calculate the emission rate of TOC using Equation 1 of this section (if you use Method 25) or Equation 2 of this section (if you use Method 25A); then calculate the mass emission reduction using Equation 3 of this section as follows:

$$E = K_4 M_c Q_s \qquad \text{(Eq. 1)}$$

Where:

E = Emission rate of TOC in the vent stream, kilograms-C per hour;

K_4 = Constant, 6.0×10^{-5} (kilograms per milligram)(minutes per hour);

M_c = Mass concentration of total gaseous nonmethane organic as measured and calculated using Method 25 in appendix A to part 60 of this chapter, mg/dscm; and

Q_s = Vent stream flow rate, dscm/min, at a temperature of 20 degrees Celsius (C).

$$E = K_5 C_{TOC} Q_S \qquad \text{(Eq. 2)}$$

Where:

E = Emission rate of TOC in the vent stream, kilograms-C per hour;

K_5 = Constant, 9.0 x 10^{-5}(parts per million) $^{-1}$ (gram-mole per standard cubic meter) (gram-C per gram-mole-propane) (kilogram per gram) (minutes per hour), where the standard temperature (standard cubic meter) is at 20 degrees C (uses 36g–C/g.mole propane);

C_{TOC} = Concentration of TOC on a dry basis in ppmv as propane as measured by Method 25A in appendix A to part 60 of this chapter; and

Q_s = Vent stream flow rate, dry standard cubic meters per minute, at a temperature of 20 degrees C.

$$\%\ \text{reduction} = \frac{E_i - E_o}{E_i} \times 100\% \qquad \text{(Eq. 3)}$$

Where:

E_i = Mass emission rate of TOC at control device inlet, kg/hr; and

E_o = Mass emission rate of TOC at control device outlet, kg/hr.

(5) If you elect the 20 parts per million by volume (ppmv) concentration limit, correct the measured TOC concentration for oxygen (O_2) content in the gas stream using Equation 4 of this section as follows:

$$C_{TOC,\,3\%O_2} = C_{TOC}\left(\frac{17.9\%}{20.9\% - \%O_2}\right) \qquad \text{(Eq. 4)}$$

(6) You are not required to do a TOC performance test if:

(i) You elect to vent emissions to a flare as provided in paragraph (a)(1)(i) of this section (Option 1); or

(ii) You elect the TOC percent reduction or concentration limit in paragraph (a)(1)(ii) of this section (Option 2), and you use a boiler or process heater with a design heat input capacity of 44 MW or greater or a boiler or process heater in which all vent streams are introduced into the flame zone.

(7) Demonstrate initial compliance with each emission limitation that applies to you according to Table 19 of this subpart.

(8) Demonstrate initial compliance with the work practice standard in paragraph (a)(5) of this section by submitting the operation, maintenance, and monitoring plan to your permitting authority as part of your Notification of Compliance Status.

(9) Submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.1574.

(c) *How do I demonstrate continuous compliance with the emission limitations and work practice standards?* You must:

(1) Demonstrate continuous compliance with each emission limitation in Tables 15 and 16 of this subpart that applies to you according to the methods specified in Tables 20 and 21 of this subpart.

(2) Demonstrate continuous compliance with the work practice standards in paragraph (a)(3) of this section by complying with the procedures in your operation, maintenance, and monitoring plan.

§ 63.1567 What are my requirements for inorganic HAP emissions from catalytic reforming units?

(a) *What emission limitations and work practice standards must I meet?* You must:

(1) Meet each emission limitation in Table 22 of this subpart that applies to you. These emission limitations apply during coke burn-off and catalyst rejuvenation. You can choose from the two options in paragraphs (a)(1)(i) through (ii) of this section:

(i) You can elect to use a control device to meet either a percent reduction standard for hydrogen chloride (HCl) emissions (Option 1); or

(ii) You can elect to meet an HCl concentration limit (Option 2).

(2) Meet each site-specific operating limit in Table 23 of this subpart that applies to you. These operating limits apply during coke burn-off and catalyst rejuvenation.

(3) Prepare an operation, maintenance, and monitoring plan according to the requirements in § 63.1574(f) and operate at all times according to the procedures in the plan.

(b) *How do I demonstrate initial compliance with the emission limitations and work practice standard?* You must:

(1) Install, operate, and maintain a continuous monitoring system(s) according to the requirements in § 63.1572 and Table 24 of this subpart.

(2) Conduct each performance test for a catalytic reforming unit according to the requirements in § 63.1571 and the conditions specified in Table 25 of this subpart.

(3) Establish each site-specific operating limit in Table 23 of this subpart that applies to you according to the procedures in Table 25 of this subpart.

(4) Demonstrate initial compliance with each emission limitation that applies to you according to Table 26 of this subpart.

(5) Demonstrate initial compliance with the work practice standard in paragraph (a)(3) of this section by submitting the operation, maintenance, and monitoring plan to your permitting authority as part of your Notification of Compliance Status.

(6) Submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.1574.

(c) *How do I demonstrate continuous compliance with the emission limitations and work practice standard?* You must:

(1) Demonstrate continuous compliance with each emission limitation in Tables 22 and 23 of this subpart that applies to you according to the methods specified in Tables 27 and 28 of this subpart.

(2) Demonstrate continuous compliance with the work practice standard in paragraph (a)(3) of this section by maintaining records to document conformance with the procedures in your operation, maintenance and monitoring plan.

§ 63.1568 What are my requirements for HAP emissions from sulfur recovery units?

(a) *What emission limitations and work practice standard must I meet?* You must:

(1) Meet each emission limitation in Table 29 of this subpart that applies to you. If your sulfur recovery unit is subject to the NSPS for sulfur oxides in § 60.104 of this chapter, you must meet the emission limitations for NSPS units. If your sulfur recovery unit isn't subject to the NSPS for sulfur oxides, you can choose from the options in paragraphs (a)(1)(i) through (ii) of this section:

(i) You can elect to meet the NSPS requirements (Option 1); or

(ii) You can elect to meet the total reduced sulfur (TRS) emission limitation (Option 2).

(2) Meet each operating limit in Table 30 of this subpart that applies to you.

(3) Prepare an operation, maintenance, and monitoring plan according to the requirements in § 63.1574(f) and operate at all times according to the procedures in the plan.

(b) *How do I demonstrate initial compliance with the emission limitations and work practice standards?* You must:

(1) Install, operate, and maintain a continuous monitoring system according to the requirements in § 63.1572 and Table 31 of this subpart.

(2) Conduct each performance test for a sulfur recovery unit not subject to the NSPS for sulfur oxides according to the requirements in § 63.1571 and under the conditions specified in Table 32 of this subpart.

(3) Establish each site-specific operating limit in Table 30 of this subpart that applies to you according to the procedures in Table 32 of this subpart.

(4) Correct the reduced sulfur samples to zero percent excess air using Equation 1 of this section as follows:

$$C_{adj} = C_{meas}\left[20.9_c/\left(20.9 - \%O_2\right)\right] \qquad \text{(Eq. 1)}$$

Where:

C_{adj} = pollutant concentration adjusted to zero percent oxygen, ppm or g/dscm;

C_{meas} = pollutant concentration measured on a dry basis, ppm or g/dscm;

20.9_c = 20.9 percent oxygen—0.0 percent oxygen (defined oxygen correction basis), percent;

20.9 = oxygen concentration in air, percent;

$\%O_2$ = oxygen concentration measured on a dry basis, percent.

(5) Demonstrate initial compliance with each emission limitation that applies to you according to Table 33 of this subpart.

(6) Demonstrate initial compliance with the work practice standard in paragraph (a)(3) of this section by submitting the operation, maintenance, and monitoring plan to your permitting authority as part of your notification of compliance status.

(7) Submit the notification of compliance status containing the results of the initial compliance demonstration according to the requirements in § 63.1574.

(c) *How do I demonstrate continuous compliance with the emission limitations and work practice standards?* You must:

(1) Demonstrate continuous compliance with each emission limitation in Tables 29 and 30 of this subpart that applies to you according to the methods specified in Tables 34 and 35 of this subpart.

(2) Demonstrate continuous compliance with the work practice standard in paragraph (a)(3) of this section by complying with the procedures in your operation, maintenance, and monitoring plan.

§ 63.1569 What are my requirements for HAP emissions from bypass lines?

(a) *What work practice standards must I meet?* (1) You must meet each work practice standard in Table 36 of this subpart that applies to you. You can choose from the four options in paragraphs (a)(1)(i) through (iv) of this section:

(i) You can elect to install an automated system (Option 1);

(ii) You can elect to use a manual lock system (Option 2);

(iii) You can elect to seal the line (Option 3); or

(iv) You can elect to vent to a control device (Option 4).

(2) As provided in § 63.6(g), we, the EPA, may choose to grant you permission to use an alternative to the work practice standard in paragraph (a)(1) of this section.

(3) You must prepare an operation, maintenance, and monitoring plan according to the requirements in § 63.1574(f) and operate at all times according to the procedures in the plan.

(b) *How do I demonstrate initial compliance with the work practice standards?* You must:

(1) If you elect the option in paragraph (a)(1)(i) of this section, conduct each performance test for a bypass line according to the requirements in § 63.1571 and under the conditions specified in Table 37 of this subpart.

(2) Demonstrate initial compliance with each work practice standard in Table 36 of this subpart that applies to you according to Table 38 of this subpart.

(3) Demonstrate initial compliance with the work practice standard in paragraph (a)(3) of this section by submitting the operation, maintenance, and monitoring plan to your permitting authority as part of your notification of compliance status.

(4) Submit the notification of compliance status containing the results of the initial compliance demonstration according to the requirements in § 63.1574.

(c) *How do I demonstrate continuous compliance with the work practice standards?* You must:

(1) Demonstrate continuous compliance with each work practice standard in Table 36 of this subpart that applies to you according to the requirements in Table 39 of this subpart.

(2) Demonstrate continuous compliance with the work practice standard in paragraph (a)(2) of this section by complying with the procedures in your operation, maintenance, and monitoring plan.

General Compliance Requirements

§ 63.1570 What are my general requirements for complying with this subpart?

(a) You must be in compliance with all of the non-opacity standards in this subpart during the times specified in § 63.6(f)(1).

(b) You must be in compliance with the opacity and visible emission limits in this subpart during the times specified in § 63.6(h)(1).

(c) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i). During the period between the compliance date specified for your affected source and the date upon which continuous monitoring systems have been installed and validated and any applicable operating limits have been set, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment.

(d) You must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3).

(e) During periods of startup, shutdown, and malfunction, you must operate in accordance with your SSMP.

(f) You must report each instance in which you did not meet each emission limitation and each operating limit in this subpart that applies to you. This includes periods of startup, shutdown, and malfunction. You also must report each instance in which you did not meet the work practice standards in this subpart that apply to you. These instances are deviations from the emission limitations and work practice standards in this subpart. These deviations must be reported according to the requirements in § 63.1575.

(g) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the SSMP. The SSMP must require that good air pollution control practices are used during those periods. The plan must also include elements designed to minimize the frequency of such periods (i.e., root cause analysis). The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in § 63.6(e) and the contents of the SSMP.

§ 63.1571 How and when do I conduct a performance test or other initial compliance demonstration?

(a) *When must I conduct a performance test?* You must conduct performance tests and report the results by no later than 150 days after the compliance date specified for your source in § 63.1563 and according to the provisions in § 63.7(a)(2). If you are required to do a performance evaluation or test for a semi-regenerative catalytic reforming unit catalyst regenerator vent, you may do them at the first regeneration cycle after your compliance date and report the results in a followup Notification of Compliance Status report due no later than 150 days after the test.

(1) For each emission limitation or work practice standard where initial compliance is not demonstrated using a performance test, opacity observation, or visible emission observation, you must conduct the initial compliance demonstration within 30 calendar days after the compliance date that is specified for your source in § 63.1563.

(2) For each emission limitation where the averaging period is 30 days, the 30-day period for demonstrating initial compliance begins at 12:00 a.m. on the compliance date that is specified for your source in § 63.1563 and ends at 11:59 p.m., 30 calendar days after the compliance date that is specified for your source in § 63.1563.

(3) If you commenced construction or reconstruction between September 11, 1998 and April 11, 2002, you must demonstrate initial compliance with either the proposed emission limitation or the promulgated emission limitation no later than October 8, 2002 or within 180 calendar days after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(4) If you commenced construction or reconstruction between September 11, 1998 and April 11, 2002, and you chose to comply with the proposed emission limitation when demonstrating initial compliance, you must conduct a second compliance demonstration for the promulgated emission limitation by October 10, 2005, or after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(b) *What are the general requirements for performance test and performance evaluations?* You must:

(1) Conduct each performance test according to the requirements in § 63.7(e)(1).

(2) Except for opacity and visible emission observations, conduct three separate test runs for each performance test as specified in § 63.7(e)(3). Each test run must last at least 1 hour.

(3) Conduct each performance evaluation according to the requirements in § 63.8(e).

(4) Not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(5) Calculate the average emission rate for the performance test by calculating the emission rate for each individual test run in the units of the applicable emission limitation using Equation 2, 5, or 8 of § 63.1564, and determining the arithmetic average of the calculated emission rates.

(c) *What procedures must I use for an engineering assessment?* You may choose to use an engineering assessment to calculate the process vent flow rate, net heating value, TOC emission rate, and total organic HAP emission rate expected to yield the highest daily emission rate when determining the emission reduction or outlet concentration for the organic HAP standard for catalytic reforming units. If you use an engineering assessment, you must document all data, assumptions, and procedures to the satisfaction of the applicable permitting authority. An engineering assessment may include the approaches listed in paragraphs (c)(1) through (c)(4) of this section. Other engineering assessments may be used but are subject to review and approval by the applicable permitting authority.

(1) You may use previous test results provided the tests are representative of current operating practices at the process unit, and provided EPA

methods or approved alternatives were used;

(2) You may use bench-scale or pilot-scale test data representative of the process under representative operating conditions;

(3) You may use maximum flow rate, TOC emission rate, organic HAP emission rate, or organic HAP or TOC concentration specified or implied within a permit limit applicable to the process vent; or

(4) You may use design analysis based on engineering principles, measurable process parameters, or physical or chemical laws or properties. Examples of analytical methods include, but are not limited to:

(i) Use of material balances based on process stoichiometry to estimate maximum TOC concentrations;

(ii) Calculation of hourly average maximum flow rate based on physical equipment design such as pump or blower capacities; and

(iii) Calculation of TOC concentrations based on saturation conditions.

(d) *Can I adjust the process or control device measured values when establishing an operating limit?* If you do a performance test to demonstrate compliance, you must base the process or control device operating limits for continuous parameter monitoring systems on the results measured during the performance test. You may adjust the values measured during the performance test according to the criteria in paragraphs (d)(1) through (3) of this section.

(1) If you must meet the HAP metal emission limitations in § 63.1564, you elect the option in paragraph (a)(1)(iii) in § 63.1564 (Ni lb/hr), and you use continuous parameter monitoring systems, you must establish an operating limit for the equilibrium catalyst Ni concentration based on the laboratory analysis of the equilibrium catalyst Ni concentration from the initial performance test. Section 63.1564(b)(2) allows you to adjust the laboratory measurements of the equilibrium catalyst Ni concentration to the maximum level. You must make this adjustment using Equation 1 of this section as follows:

$$\text{Ecat-Limit} = \frac{13\ \text{g Ni/hr}}{\text{NiEmR1}_{st}} \times \text{Ecat}_{st} \qquad \text{(Eq. 1)}$$

Where:

Ecat-Limit = Operating limit for equilibrium catalyst Ni concentration, mg/kg;

NiEmR1_{st} = Average Ni emission rate calculated as the arithmetic average Ni emission rate using Equation 5 of this section for each performance test run, g Ni/hr; and

Ecat_{st} = Average equilibrium Ni concentration from laboratory test results, mg/kg.

(2) If you must meet the HAP metal emission limitations in § 63.1564, you elect the option in paragraph (a)(1)(iv) in § 63.1564 (Ni lb/1,000 lb of coke burn-off), and you use continuous parameter monitoring systems, you must establish an operating limit for the equilibrium catalyst Ni concentration based on the laboratory analysis of the equilibrium catalyst Ni concentration from the initial performance test. Section 63.1564(b)(2) allows you to adjust the laboratory measurements of the equilibrium catalyst Ni concentration to the maximum level. You must make this adjustment using Equation 2 of this section as follows:

$$\text{Ecat-Limit} = \frac{1.0\ \text{mg/kg coke burn-off}}{\text{NiEmR2}_{st}} \times \text{Ecat}_{st} \qquad \text{(Eq. 2)}$$

Where:

NiEmR2_{st} = Average Ni emission rate calculated as the arithmetic average Ni emission rate using Equation 8 of § 63.1564 for each performance test run, mg/kg coke burn-off.

(3) If you choose to adjust the equilibrium catalyst Ni concentration to the maximum level, you can't adjust any other monitored operating parameter (i.e., gas flow rate, voltage, pressure drop, liquid-to-gas ratio).

(4) Except as specified in paragraph (d)(3) of this section, if you use continuous parameter monitoring systems, you may adjust one of your monitored operating parameters (flow rate, voltage and secondary current, pressure drop, liquid-to-gas ratio) from the average of measured values during the performance test to the maximum value (or minimum value, if applicable) representative of worst-case operating conditions, if necessary. This adjustment of measured values may be done using control device design specifications, manufacturer recommendations, or other applicable information. You must provide supporting documentation and rationale in your Notification of Compliance Status, demonstrating to the satisfaction of your permitting authority, that your affected source complies with the applicable emission limit at the operating limit based on adjusted values.

(e) *Can I change my operating limit?* You may change the established operating limit by meeting the requirements in paragraphs (e)(1) through (3) of this section.

(1) You may change your established operating limit for a continuous parameter monitoring system by doing an additional performance test, a performance test in conjunction with an engineering assessment, or an engineering assessment to verify that, at the new operating limit, you are in compliance with the applicable emission limitation.

(2) You must establish a revised operating limit for your continuous parameter monitoring system if you make any change in process or operating conditions that could affect control system performance or you change designated conditions after the last performance or compliance tests were done. You can establish the revised operating limit as described in paragraph (e)(1) of this section.

(3) You may change your site-specific opacity operating limit or Ni operating limit only by doing a new performance test.

§ 63.1572 What are my monitoring installation, operation, and maintenance requirements?

(a) You must install, operate, and maintain each continuous emission monitoring system according to the requirements in paragraphs (a)(1) through (4) of this section.

(1) You must install, operate, and maintain each continuous emission monitoring system according to the requirements in Table 40 of this subpart.

(2) If you use a continuous emission monitoring system to meet the NSPS CO or SO_2 limit, you must conduct a performance evaluation of each continuous emission monitoring system according to the requirements in § 63.8 and Table 40 of this subpart. This requirement does not apply to an affected source subject to the NSPS that has already demonstrated initial compliance with the applicable performance specification.

(3) As specified in § 63.8(c)(4)(ii), each continuous emission monitoring system must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(4) Data must be reduced as specified in § 63.8(g)(2).

(b) You must install, operate, and maintain each continuous opacity monitoring system according to the requirements in paragraphs (b)(1) through (3) of this section.

(1) Each continuous opacity monitoring system must be installed, operated, and maintained according to the requirements in Table 40 of this subpart.

(2) If you use a continuous opacity monitoring system to meet the NSPS opacity limit, you must conduct a performance evaluation of each continuous opacity monitoring system according to the requirements in § 63.8 and Table 40 of this subpart. This requirement does not apply to an affected source subject to the NSPS that has already demonstrated initial compliance with the applicable performance specification.

(3) As specified in § 63.8(c)(4)(i), each continuous opacity monitoring system must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(c) You must install, operate, and maintain each continuous parameter monitoring system according to the requirements in paragraphs (c)(1) through (7) of this section.

(1) Each continuous parameter monitoring system must be installed, operated, and maintained according to the requirements in Table 41 of this subpart and in a manner consistent with the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment will monitor accurately.

(2) The continuous parameter monitoring system must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data (or at least two if a calibration check is performed during that hour or if the continuous parameter monitoring system is out-of-control).

(3) Each continuous parameter monitoring system must have valid hourly average data from at least 75 percent of the hours during which the process operated.

(4) Each continuous parameter monitoring system must determine and record the hourly average of all recorded readings and if applicable, the daily average of all recorded readings for each operating day. The daily average must cover a 24-hour period if operation is continuous or the number of hours of operation per day if operation is not continuous.

(5) Each continuous parameter monitoring system must record the results of each inspection, calibration, and validation check.

(d) You must monitor and collect data according to the requirements in paragraphs (d)(1) and (2) of this section.

(1) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation (or collect data at all required intervals) at all times the affected source is operating.

(2) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities for purposes of this regulation, including data averages and calculations, for fulfilling a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

§ 63.1573 What are my monitoring alternatives?

(a) *What is the approved alternative for monitoring gas flow rate?* You can elect to use this alternative to a continuous parameter monitoring system for the catalytic regenerator exhaust gas flow rate for your catalytic cracking unit if the unit does not introduce any other gas streams into the catalyst regeneration vent (i.e., complete combustion units with no additional combustion devices). If you select this alternative, you must use the same procedure for the performance test and for monitoring after the performance test.

(1) Install and operate a continuous parameter monitoring system to measure and record the hourly average volumetric air flow rate to the catalytic cracking unit regenerator. Or, you can determine and record the hourly average volumetric air flow rate to the catalytic cracking unit regenerator using the catalytic cracking unit control room instrumentation.

(2) Install and operate a continuous parameter monitoring system to measure and record the temperature of the gases entering the control device (or exiting the catalyst regenerator if you do not use an add-on control device).

(3) Calculate and record the hourly average actual exhaust gas flow rate using Equation 1 of this section as follows:

$$Q_{gas} = (1.12\ \text{scfm/dscfm}) \times (Q_{air} + Q_{oxy}) \times \left(\frac{Temp_{gas}}{273°\,K}\right) \times \left(\frac{P_{vent}}{1\ \text{atm.}}\right) \qquad \text{(Eq. 1)}$$

Where:

Q_{gas} = Hourly average actual gas flow rate, acfm;

1.12 = Default correction factor to convert gas flow from dry standard cubic feet per minute (dscfm) to standard cubic feet per minute (scfm);

Q_{air} = Volumetric flow rate of air to regenerator, as determined from the catalytic cracking unit control room instrumentations, dscfm;

Q_{oxy} = Volumetric flow rate of oxygen-enriched air stream to regenerator, as determined from the catalytic cracking unit control room instrumentations, dscfm;

$Temp_{gas}$ = Temperature of gas stream in vent measured as near as practical to the control device or opacity monitor, °K. For wet scrubbers, temperature of gas prior to the wet scrubber; and

P_{vent} = Absolute pressure in the vent measured as near as practical to the control device or opacity monitor, atm. When used in conjunction with opacity in the final vent stack, you can assume P_{vent} = 1 atm.

(b) *What is the approved alternative for monitoring pH levels?* If you use a wet scrubber to control inorganic HAP emissions from your vent on a catalytic reforming unit, you can measure and record the pH of the water (or scrubbing liquid) exiting the scrubber at least once an hour during coke burn-off and catalyst rejuvenation using pH strips as an alternative to a continuous parameter monitoring system. The pH strips must meet the requirements in Table 41 of this subpart.

(c) *Can I use another type of monitoring system?* You may request approval from your permitting authority to use an automated data compression system. An automated data compression system does not record monitored operating parameter values at a set frequency (e.g., once every hour) but records all values that meet set criteria for variation from previously recorded values. Your request must contain a description of the monitoring system and data recording system, including the criteria used to determine which monitored values are recorded and retained, the method for calculating daily averages, and a demonstration that the system meets all of the criteria in paragraphs (c)(1) through (5) of this section:

(1) The system measures the operating parameter value at least once every hour;

(2) The system records at least 24 values each day during periods of operation;

(3) The system records the date and time when monitors are turned off or on;

(4) The system recognizes unchanging data that may indicate the monitor is not functioning properly, alerts the operator, and records the incident; and

(5) The system computes daily average values of the monitored operating parameter based on recorded data.

(d) *Can I monitor other process or control device operating parameters?* You may request approval to monitor parameters other than those required in this subpart. You must request approval if:

(1) You use a control device other than a thermal incinerator, boiler, process heater, flare, electrostatic precipitator, or wet scrubber;

(2) You use a combustion control device (e.g., incinerator, flare, boiler or process heater with a design heat capacity of at least 44 MW, boiler or process heater where the vent stream is introduced into the flame zone), electrostatic precipitator, or scrubber but want to monitor a parameter other than those specified; or

(3) You wish to use another type of continuous emission monitoring system that provides direct measurement of a pollutant (i.e., a PM or multi-metals HAP continuous emission monitoring system, a carbonyl sulfide/carbon disulfide continuous emission monitoring system, a TOC continuous emission monitoring system, or HCl continuous emission monitoring system).

(e) *How do I request to monitor alternative parameters?* You must submit a request for review and approval or disapproval to the Administrator. The request must include the information in paragraphs (e)(1) through (5) of this section.

(1) A description of each affected source and the parameter(s) to be monitored to determine whether the affected source will continuously comply with the emission limitations and an explanation of the criteria used to select the parameter(s).

(2) A description of the methods and procedures that will be used to demonstrate that the parameter can be used to determine whether the affected source will continuously comply with the emission limitations and the schedule for this demonstration. You must certify that you will establish an operating limit for the monitored parameter(s) that represents the conditions in existence when the control device is being properly operated and maintained to meet the emission limitation.

(3) The frequency and content of monitoring, recording, and reporting, if monitoring and recording are not continuous. You also must include the rationale for the proposed monitoring, recording, and reporting requirements.

(4) Supporting calculations.

(5) Averaging time for the alternative operating parameter.

Notifications, Reports, and Records

§ 63.1574 What notifications must I submit and when?

(a) Except as allowed in paragraphs (a)(1) through (3) of this section, you must submit all of the notifications in §§ 63.6(h), 63.7(b) and (c), 63.8(e), 63.8(f)(4), 63.8(f)(6), and 63.9(b) through (h) that apply to you by the dates specified.

(1) You must submit the notification of your intention to construct or reconstruct according to § 63.9(b)(5) unless construction or reconstruction had commenced and initial startup had not occurred before April 11, 2002. In this case, you must submit the notification as soon as practicable before startup but no later than July 10, 2002. This deadline also applies to the application for approval of construction or reconstruction and approval of construction or reconstruction based on State preconstruction review required in §§ 63.5(d)(1)(i) and 63.5(f)(2).

(2) You must submit the notification of intent to conduct a performance test required in § 63.7(b) at least 30 calendar days before the performance test is scheduled to begin (instead of 60 days).

(3) If you are required to conduct a performance test, performance evaluation, design evaluation, opacity observation, visible emission observation, or other initial compliance demonstration, you must submit a notification of compliance status according to § 63.9(h)(2)(ii). You can submit this information in an operating permit application, in an amendment to an operating permit application, in a separate submission, or in any combination. In a State with an approved operating permit program where delegation of authority under section 112(l) of the CAA has not been requested or approved, you must provide a duplicate notification to the applicable Regional Administrator. If the required information has been submitted previously, you do not have to provide a separate notification of compliance status. Just refer to the earlier submissions instead of duplicating and resubmitting the previously submitted information.

(i) For each initial compliance demonstration that does not include a performance test, you must submit the Notification of Compliance Status no later than 30 calendar days following completion of the initial compliance demonstration.

(ii) For each initial compliance demonstration that includes a performance test, you must submit the notification of compliance status, including the performance test results, no later than 150 calendar days after the compliance date specified for your affected source in § 63.1573.

(b) As specified in § 63.9(b)(2), if you startup your new affected source before April 11, 2002, you must submit the initial notification no later than August 9, 2002.

(c) As specified in § 63.9(b)(3), if you start your new or reconstructed affected source on or after April 11, 2002, you must submit the initial notification no

later than 120 days after you become subject to this subpart.

(d) You also must include the information in Table 42 of this subpart in your notification of compliance status.

(e) If you request an extension of compliance for an existing catalytic cracking unit as allowed in § 63.1563(c), you must submit a notification to your permitting authority containing the required information by October 13, 2003.

(f) As required by this subpart, you must prepare and implement an operation, maintenance, and monitoring plan for each affected source, control system, and continuous monitoring system. The purpose of this plan is to detail the operation, maintenance, and monitoring procedures you will follow.

(1) You must submit the plan to your permitting authority for review and approval along with your notification of compliance status. While you do not have to include the entire plan in your part 70 or 71 permit, you must include the duty to prepare and implement the plan as an applicable requirement in your part 70 or 71 operating permit. You must submit any changes to your permitting authority for review and approval and comply with the plan until the change is approved.

(2) Each plan must include, at a minimum, the information specified in paragraphs (f)(2)(i) through (x) of this section.

(i) Process and control device parameters to be monitored for each affected source, along with established operating limits.

(ii) Procedures for monitoring emissions and process and control device operating parameters for each affected source.

(iii) Procedures that you will use to determine the coke burn-rate, the volumetric flow rate (if you use process data rather than direct measurement), and the rate of combustion of liquid or solid fossil fuels if you use an incinerator-waste heat boiler to burn the exhaust gases from a catalyst regenerator.

(iv) Procedures and analytical methods you will use to determine the equilibrium catalyst Ni concentration, the equilibrium catalyst Ni concentration monthly rolling average, and the hourly or hourly average Ni operating value.

(v) Procedures you will use to determine the pH of the water (or scrubbing liquid) exiting a wet scrubber if you use pH strips.

(vi) Procedures you will use to determine the HCl concentration of gases from a semi-regenerative catalytic reforming unit with an internal scrubbing system (i.e., no add-on control device) when you use a colormetric tube sampling system, including procedures for correcting for pressure (if applicable to the sampling equipment).

(vii) Procedures you will use to determine the gas flow rate for a catalytic cracking unit if you use the alternative procedure based on air flow rate and temperature.

(viii) Monitoring schedule, including when you will monitor and when you will not monitor an affected source (e.g., during the coke burn-off, regeneration process).

(ix) Quality control plan for each continuous opacity monitoring system and continuous emission monitoring system you use to meet an emission limit in this subpart. This plan must include procedures you will use for calibrations, accuracy audits, and adjustments to the system needed to meet applicable requirements for the system.

(x) Maintenance schedule for each affected source, monitoring system, and control device that is generally consistent with the manufacturer's instructions for routine and long-term maintenance.

§ 63.1575 What reports must I submit and when?

(a) You must submit each report in Table 43 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule, you must submit each report by the date in Table 43 of this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.1563 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your affected source in § 63.1563.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in § 63.1563.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to part 70 or 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to § 70.6(a)(3)(iii)(A) or § 71.6(a)(3)(iii)(A) of this chapter, you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information required in paragraphs (c)(1) through (4) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If there are no deviations from any emission limitation that applies to you and there are no deviations from the requirements for work practice standards, a statement that there were no deviations from the emission limitations or work practice standards during the reporting period and that no continuous emission monitoring system or continuous opacity monitoring system was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted.

(d) For each deviation from an emission limitation and for each deviation from the requirements for work practice standards that occurs at an affected source where you are not using a continuous opacity monitoring system or a continuous emission monitoring system to comply with the emission limitation or work practice standard in this subpart, the compliance report must contain the information in paragraphs (c)(1) through (3) of this section and the information in paragraphs (d)(1) through (3) of this section.

(1) The total operating time of each affected source during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(3) Information on the number, duration, and cause for monitor downtime incidents (including

unknown cause, if applicable, other than downtime associated with zero and span and other daily calibration checks).

(e) For each deviation from an emission limitation occurring at an affected source where you are using a continuous opacity monitoring system or a continuous emission monitoring system to comply with the emission limitation, you must include the information in paragraphs (d)(1) through (3) of this section and the information in paragraphs (e)(1) through (13) of this section.

(1) The date and time that each malfunction started and stopped.

(2) The date and time that each continuous opacity monitoring system or continuous emission monitoring system was inoperative, except for zero (low-level) and high-level checks.

(3) The date and time that each continuous opacity monitoring system or continuous emission monitoring system was out-of-control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging period specified in the regulation for other types of emission limitations), and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period and into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging time specified in the regulation for other types of standards), and the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system as a percent of the total source operating time during that reporting period.

(8) A breakdown of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.

(9) An identification of each HAP that was monitored at the affected source.

(10) A brief description of the process units.

(11) The monitoring equipment manufacturer(s) and model number(s).

(12) The date of the latest certification or audit for the continuous opacity monitoring system or continuous emission monitoring system.

(13) A description of any change in the continuous emission monitoring system or continuous opacity monitoring system, processes, or controls since the last reporting period.

(f) You also must include the information required in paragraphs (f)(1) through (2) of this section in each compliance report, if applicable.

(1) A copy of any performance test done during the reporting period on any affected unit. The report may be included in the next semiannual report. The copy must include a complete report for each test method used for a particular kind of emission point tested. For additional tests performed for a similar emission point using the same method, you must submit the results and any other information required, but a complete test report is not required. A complete test report contains a brief process description; a simplified flow diagram showing affected processes, control equipment, and sampling point locations; sampling site data; description of sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; documentation of calculations; and any other information required by the test method.

(2) Any requested change in the applicability of an emission standard (e.g., you want to change from the PM standard to the Ni standard for catalytic cracking units or from the HCl concentration standard to percent reduction for catalytic reforming units) in your periodic report. You must include all information and data necessary to demonstrate compliance with the new emission standard selected and any other associated requirements.

(g) You may submit reports required by other regulations in place of or as part of the compliance report if they contain the required information.

(h) The reporting requirements in paragraphs (h)(1) and (2) of this section apply to startups, shutdowns, and malfunctions:

(1) When actions taken to respond are consistent with the plan, you are not required to report these events in the semiannual compliance report and the reporting requirements in §§ 63.6(e)(3)(iii) and 63.10(d)(5) do not apply.

(2) When actions taken to respond are not consistent with the plan, you must report these events and the response taken in the semiannual compliance report. In this case, the reporting requirements in §§ 63.6(e)(3)(iv) and 63.10(d)(5) do not apply.

(i) If the applicable permitting authority has approved a period of planned maintenance for your catalytic cracking unit according to the requirements in paragraph (j) of this section, you must include the following information in your compliance report.

(1) In the compliance report due for the 6-month period before the routine planned maintenance is to begin, you must include a full copy of your written request to the applicable permitting authority and written approval received from the applicable permitting authority.

(2) In the compliance report due after the routine planned maintenance is complete, you must include a description of the planned routine maintenance that was performed for the control device during the previous 6-month period, and the total number of hours during those 6 months that the control device did not meet the emission limitations and monitoring requirements as a result of the approved routine planned maintenance.

(j) If you own or operate multiple catalytic cracking units that are served by a single wet scrubber emission control device (e.g., a Venturi scrubber), you may request the applicable permitting authority to approve a period of planned routine maintenance for the control device needed to meet requirements in your operation, maintenance, and monitoring plan. You must present data to the applicable permitting authority demonstrating that the period of planned maintenance results in overall emissions reductions. During this pre-approved time period, the emission control device may be taken out of service while maintenance is performed on the control device and/or one of the process units while the remaining process unit(s) continue to operate. During the period the emission control device is unable to operate, the emission limits, operating limits, and monitoring requirements applicable to the unit that is operating and the wet scrubber emission control device do not

apply. The applicable permitting authority may require that you take specified actions to minimize emissions during the period of planned maintenance.

(1) You must submit a written request to the applicable permitting authority at least 6 months before the planned maintenance is scheduled to begin with a copy to the EPA Regional Administrator.

(2) Your written request must contain the information in paragraphs (j)(2)(i) through (v) of this section.

(i) A description of the planned routine maintenance to be performed during the next 6 months and why it is necessary.

(ii) The date the planned maintenance will begin and end.

(iii) A quantified estimate of the HAP and criteria pollutant emissions that will be emitted during the period of planned maintenance.

(iv) An analysis showing the emissions reductions resulting from the planned maintenance as opposed to delaying the maintenance until the next unit turnaround.

(v) Actions you will take to minimize emissions during the period of planned maintenance.

§ 63.1576 What records must I keep, in what form, and for how long?

(a) You must keep the records specified in paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or Notification of Compliance Status that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) The records in § 63.6(e)(1)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests, performance evaluations, and opacity and visible emission observations as required in § 63.10(b)(2)(viii).

(b) For each continuous emission monitoring system and continuous opacity monitoring system, you must keep the records required in paragraphs (b)(1) through (5) of this section.

(1) Records described in § 63.10(b)(2)(vi) through (xi).

(2) Monitoring data for continuous opacity monitoring systems during a performance evaluation as required in § 63.6(h)(7)(i) and (ii).

(3) Previous (i.e., superceded) versions of the performance evaluation plan as required in § 63.8(d)(3).

(4) Requests for alternatives to the relative accuracy test for continuous emission monitoring systems as required in § 63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records in § 63.6(h) for visible emission observations.

(d) You must keep records required by Tables 6, 7, 13, and 14 of this subpart (for catalytic cracking units); Tables 20, 21, 27 and 28 of this subpart (for catalytic reforming units); Tables 34 and 35 of this subpart (for sulfur recovery units); and Table 39 of this subpart (for bypass lines) to show continuous compliance with each emission limitation that applies to you.

(e) You must keep a current copy of your operation, maintenance, and monitoring plan onsite and available for inspection. You also must keep records to show continuous compliance with the procedures in your operation, maintenance, and monitoring plan.

(f) You also must keep the records of any changes that affect emission control system performance including, but not limited to, the location at which the vent stream is introduced into the flame zone for a boiler or process heater.

(g) Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1).

(h) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(i) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records offsite for the remaining 3 years.

Other Requirements and Information

§ 63.1577 What parts of the General Provisions apply to me?

Table 44 of this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.1578 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that Agency has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (5) of this section.

(1) Approval of alternatives to the non-opacity emission limitations and work practice standards in §§ 63.1564 through 63.1569 under § 63.6(g).

(2) Approval of alternative opacity emission limitations in §§ 63.1564 through 63.1569 under § 63.6(h)(9).

(3) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(4) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(5) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.1579 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA), in 40 CFR 63.2, the General Provisions of this part (§§ 63.1 through 63.15), and in this section as listed.

Boiler means any enclosed combustion device that extracts useful energy in the form of steam and is not an incinerator.

Catalytic cracking unit means a refinery process unit in which petroleum derivatives are continuously charged; hydrocarbon molecules in the presence of a catalyst suspended in a fluidized bed are fractured into smaller molecules, or react with a contact material suspended in a fluidized bed to improve feedstock quality for additional processing; and the catalyst or contact material is continuously regenerated by burning off coke and other deposits. The unit includes, but is not limited to, the riser, reactor, regenerator, air blowers, spent catalyst or contact material stripper, catalyst or contact material recovery equipment, and regenerator equipment for controlling air pollutant emissions and equipment used for heat recovery.

Catalytic cracking unit catalyst regenerator means one or more regenerators (multiple regenerators) which comprise that portion of the catalytic cracking unit in which coke burn-off and catalyst or contact material

regeneration occurs and includes the regenerator combustion air blower(s).

Catalytic reforming unit means a refinery process unit that reforms or changes the chemical structure of naphtha into higher octane aromatics through the use of a metal catalyst and chemical reactions that include dehydrogenation, isomerization, and hydrogenolysis. The catalytic reforming unit includes the reactor, regenerator (if separate), separators, catalyst isolation and transport vessels (e.g., lock and lift hoppers), recirculation equipment, scrubbers, and other ancillary equipment.

Catalytic reforming unit regenerator means one or more regenerators which comprise that portion of the catalytic reforming unit and ancillary equipment in which the following regeneration steps typically are performed: depressurization, purge, coke burn-off, catalyst rejuvenation with a chloride (or other halogenated) compound(s), and a final purge. The catalytic reforming unit catalyst regeneration process can be done either as a semi-regenerative, cyclic, or continuous regeneration process.

Coke burn-off means the coke removed from the surface of the catalytic cracking unit catalyst or the catalytic reforming unit catalyst by combustion in the catalyst regenerator. The rate of coke burn-off is calculated using Equation 2 in § 63.1564.

Combustion device means an individual unit of equipment such as a flare, incinerator, process heater, or boiler used for the destruction of organic HAP or VOC.

Combustion zone means the space in an enclosed combustion device (e.g., vapor incinerator, boiler, furnace, or process heater) occupied by the organic HAP and any supplemental fuel while burning. The combustion zone includes any flame that is visible or luminous as well as that space outside the flame envelope in which the organic HAP continues to be oxidized to form the combustion products.

Contact material means any substance formulated to remove metals, sulfur, nitrogen, or any other contaminants from petroleum derivatives.

Continuous regeneration reforming means a catalytic reforming process characterized by continuous flow of catalyst material through a reactor where it mixes with feedstock, and a portion of the catalyst is continuously removed and sent to a special regenerator where it is regenerated and continuously recycled back to the reactor.

Control device means any equipment used for recovering, removing, or oxidizing HAP in either gaseous or solid form. Such equipment includes, but is not limited to, condensers, scrubbers, electrostatic precipitators, incinerators, flares, boilers, and process heaters.

Cyclic regeneration reforming means a catalytic reforming process characterized by continual batch regeneration of catalyst in situ in any one of several reactors (e.g., 4 or 5 separate reactors) that can be isolated from and returned to the reforming operation while maintaining continuous reforming process operations (i.e., feedstock continues flowing through the remaining reactors without change in feed rate or product octane).

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limit, operating limit, or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Emission limitation means any emission limit, opacity limit, operating limit, or visible emission limit.

Flame zone means the portion of a combustion chamber of a boiler or process heater occupied by the flame envelope created by the primary fuel.

Flow indicator means a device that indicates whether gas is flowing, or whether the valve position would allow gas to flow, in or through a line.

Fuel gas system means the offsite and onsite piping and control system that gathers gaseous streams generated by the source, may blend them with sources of gas, if available, and transports the blended gaseous fuel at suitable pressures for use as fuel in heaters, furnaces, boilers, incinerators, gas turbines, and other combustion devices located within or outside of the refinery. The fuel is piped directly to each individual combustion device, and the system typically operates at pressures over atmospheric. The gaseous streams can contain a mixture of methane, light hydrocarbons, hydrogen, and other miscellaneous species.

HCl means for the purposes of this subpart, gaseous emissions of hydrogen chloride that serve as a surrogate measure for total emissions of hydrogen chloride and chlorine as measured by Method 26 or 26A in appendix A to part 60 of this chapter or an approved alternative method.

Incinerator means an enclosed combustion device that is used for destroying organic compounds, with or without heat recovery. Auxiliary fuel may be used to heat waste gas to combustion temperatures. An incinerator may use a catalytic combustion process where a substance is introduced into an exhaust stream to burn or oxidize contaminants while the substances itself remains intact, or a thermal process which uses elevated temperatures as a primary means to burn or oxidize contaminants.

Ni means, for the purposes of this subpart, particulate emissions of nickel that serve as a surrogate measure for total emissions of metal HAP, including but not limited to: antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, nickel, and selenium as measured by Method 29 in appendix A to part 60 of this chapter or by an approved alternative method.

Oxidation control system means an emission control system which reduces emissions from sulfur recovery units by converting these emissions to sulfur dioxide.

PM means, for the purposes of this subpart, emissions of particulate matter that serve as a surrogate measure of the total emissions of particulate matter and metal HAP contained in the particulate matter, including but not limited to: antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, nickel, and selenium as measured by Methods 5B or 5F in appendix A to part 60 of this chapter or by an approved alternative method.

Process heater means an enclosed combustion device that primarily transfers heat liberated by burning fuel directly to process streams or to heat transfer liquids other than water.

Process vent means, for the purposes of this subpart, a gas stream that is continuously or periodically discharged during normal operation of a catalytic cracking unit, catalytic reforming unit, or sulfur recovery unit, including gas streams that are discharged directly to the atmosphere, gas streams that are routed to a control device prior to discharge to the atmosphere, or gas streams that are diverted through a product recovery device line prior to control or discharge to the atmosphere.

Reduced sulfur compounds means hydrogen sulfide, carbonyl sulfide, and carbon disulfide.

Reduction control system means an emission control system which reduces emissions from sulfur recovery units by converting these emissions to hydrogen sulfide.

Responsible official means responsible official as defined in 40 CFR 70.2.

Semi-regenerative reforming means a catalytic reforming process characterized by shutdown of the entire reforming unit (e.g., which may employ three to four separate reactors) at specified intervals or at the owner's or operator's convenience for in situ catalyst regeneration.

Sulfur recovery unit means a process unit that recovers elemental sulfur from gases that contain reduced sulfur compounds and other pollutants, usually by a vapor-phase catalytic reaction of sulfur dioxide and hydrogen sulfide. This definition does not include a unit where the modified reaction is carried out in a water solution which contains a metal ion capable of oxidizing the sulfide ion to sulfur, e.g., the LO–CAT II process.

TOC means, for the purposes of this subpart, emissions of total organic compounds, excluding methane and ethane, that serve as a surrogate measure of the total emissions of organic HAP compounds, including but not limited to, acetaldehyde, benzene, hexane, phenol, toluene, and xylenes and non-HAP VOC as measured by Method 25 or 25A in appendix A to part 60 of this chapter or an approved alternative method.

TRS means, for the purposes of this subpart, emissions of total reduced sulfur compounds, expressed as an equivalent sulfur dioxide concentration, that serve as a surrogate measure of the total emissions of sulfide HAP carbonyl sulfide and carbon disulfide as measured by Method 15 in appendix A to part 60 of this chapter or by an approved alternative method.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

TABLE 1 TO SUBPART UUU OF PART 63.—METAL HAP EMISSION LIMITS FOR CATALYTIC CRACKING UNITS

[As stated in § 63.1564(a)(1), you must meet each emission limitation in the following table that applies to you]

For each new or existing catalytic cracking unit * * *	You must meet the following emission limits for each catalyst regenerator vent * * *
1. Subject to the new source performance standard (NSPS) for PM in 40 CFR 60.102.	PM emissions must not exceed 1.0 kilogram (kg) per 1,000 kg (1.0 lb/1,000 lb) of coke burn-off in the catalyst regenerator; if the discharged gases pass through an incinerator or waste heat boiler in which you burn auxiliary or supplemental liquid or solid fossil fuel, you must limit the incremental rate of PM to no more than 43.0 grams per Megajoule (g/MJ) or 0.10 pounds per million British thermal units (lb/million Btu) of heat input attributable to the liquid or solid fossil fuel; and the opacity of emissions must not exceed 30 percent, except for one 6-minute average opacity reading in any 1-hour period.
2. Option 1: NSPS requirements not subject to the NSPS for PM in 40 CFR 60.102.	PM emissions must not exceed 1.0 kg/1,000 kg (1.0 lb/1,000 lb) of coke burn-off in the catalyst regenerator; if the discharged gases pass through an incinerator or waste heat boiler in which you burn auxiliary or in supplemental liquid or solid fossil fuel, you must limit the incremental rate of PM to no more than 43.0 g/MJ or lb/million Btu of heat input attributable to the liquid or solid fossil fuel; and the opacity of emissions must not exceed 30 percent, except for one 6-minute average opacity reading in any 1-hour period.
3. Option 2: PM limit not subject to the NSPS for PM in 40 CFR 60.102.	PM emissions must not exceed 1.0 kg/1,000 kg (1.0 lb/1,000 lbs) of coke burn-off in the catalyst regenerator.
4. Option 3: Ni lb/hr not subject to the NSPS for PM in 40 CFR 60.102.	Nickel (Ni) emissions must not exceed 13,000 milligrams per hour (mg/hr) (0.029 lb/hr).
5. Option 4: Ni Lb/1,000 lbs of coke burn-off not subject to the NSPS for PM in 40 CFR 60.102.	Ni emissions must not exceed 1.0 mg/kg (0.001 lb/1,000 lbs) of coke burn-off in the catalyst regenerator.

TABLE 2 TO SUBPART UUU OF PART 63.—OPERATING LIMITS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS

[As stated in § 63.1564(a)(2), you must meet each operating limit in the following table that applies to you]

For each new or existing catalytic cracking unit * * *	For this type of continuous monitoring system * * *	For this type of control device * * *	You must meet this operating limit * * *
1. Subject to the NSPS for PM in 40 CFR 60.102.	Continuous opacity monitoring system.	Not applicable	Not applicable.
2. Option 1: NSPS requirements not subject to the NSPS for PM in 40 CFR 60.102.	Continuous opacity monitoring system.	Not applicable	Not applicable.
3. Option 2: PM limit not subject to the NSPS for PM in 40 CFR 60.102.	a. Continuous opacity monitoring system.	Electrostatic precipitator	Maintain the hourly average opacity of emissions from your catalyst regenerator vent no higher than the site-specific opacity limit established during the performance test.

TABLE 2 TO SUBPART UUU OF PART 63.—OPERATING LIMITS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS—Continued

[As stated in § 63.1564(a)(2), you must meet each operating limit in the following table that applies to you]

For each new or existing catalytic cracking unit * * *	For this type of continuous monitoring system * * *	For this type of control device * * *	You must meet this operating limit * * *
	b. Continuous parameter monitoring systems.	Electrostatic precipitator	Maintain the daily average gas flow rate no higher than the limit established in the performance test; and maintain the daily average voltage and secondary current (or total power input) above the limit established in the performance test.
	c. Continuous parameter monitoring systems.	Wet scrubber	Maintain the daily average pressure drop above the limit established in the performance test (not applicable to a wet scrubber of the non-venturi jet-ejector design); and maintain the daily average liquid-to-gas ratio above the limit established in the performance test.
4. Option 3: Ni lb/hr not subject to the NSPS for PM in 40 CFR 60.102.	a. Continuous opacity monitoring system.	Electrostatic precipitator	Maintain the daily average Ni operating value no higher than the limit established during the performance test.
	b. Continuous parameter monitoring systems.	i. Electrostatic precipitator	Maintain the daily average gas flow rate no higher than the limit established during the performance test; maintain the monthly rolling average of the equilibrium catalyst Ni concentration no higher than the limit established during the performance test; and maintain the daily average voltage and secondary current (or total power input) above the established during the performance test.
		ii. Wet scrubber	Maintain the monthly rolling average of the equilibrium catalyst Ni concentration no higher than the limit established during the performance test; maintain the daily average pressure drop above the limit established during the performance test (not applicable to a non-venturi wet scrubber of the jet-ejector design); and maintain the daily average liquid-to-gas ratio above the limit established during the performance test.
5. Option 4: Ni lb/1,000 lbs of coke burn-off not subject to the NSPS for PM in 40 CFR 60.102.	a. Continuous opacity monitoring system	Electrostatic precipitator	Maintain the daily average Ni operating value no higher than the Ni operating limit established during the performance test.
	b. Continuous parameter monitoring systems.	i. Electrostatic precipitator	Maintain the monthly rolling average of the equilibrium catalyst Ni concentration no higher than the limit established during the performance test; and maintain the daily average voltage and secondary current for total power input) above the limit established during the performance test.

TABLE 2 TO SUBPART UUU OF PART 63.—OPERATING LIMITS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS—Continued

[As stated in § 63.1564(a)(2), you must meet each operating limit in the following table that applies to you]

For each new or existing catalytic cracking unit * * *	For this type of continuous monitoring system * * *	For this type of control device * * *	You must meet this operating limit * * *
		ii. Wet scrubber	Maintain the monthly rolling average of the equilibrium catalyst Ni concentration no higher than the limit established during the performance test; maintain the daily average pressure drop above the limit established during the performance test (not applicable to a non-venturi wet scrubber of the jet-ejector design); and maintain the daily average liquid-to-gas ratio above the limit established during the performance test.

TABLE 3 TO SUBPART UUU OF PART 63.—CONTINOUS MONITORING SYSTEMS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS

[As stated in § 63.1564(b)(1), you must meet each requirement in the following table that applies to you]

For each new or existing catalytic cracking unit * * *	If your catalytic cracking unit is * * *	And you use this type of control device for your vent * * *	You must install, operate, and maintain a * * *
1. Subject to the NSPS for PM in 40 CFR 60.102.	Any size	Electrostatic precipitator or wet scrubber or no control device.	Continous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent.
2. Option 1: NSPS limits not subject to the NSPS for PM in 40 CFR 60.102.	Any size	Electrostatic precipitator or wet scrubber or no control device.	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent.
3. Option 2: PM limit not subject to the NSPS for PM in 40 CFR 60.102.	a. Over 20,000 barrels per day fresh feed capacity.	Electrostatic precipitator	Continous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent.
	b. Up to 20,000 barrels per day fresh feed capacity.	Electrostatic precipitator	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent; or continuous parameter monitoring systems to measure and record the gas flow rate to the control device and the voltage and secondary current (or total power input) to the control device.
	c. Any size	i. Wet scrubber	(1) Continuous parameter monitoring system to measure and record the pressure drop across the scrubber, gas flow rate to the scrubber, and total liquid (or scrubbing liquor) flow rate to the scrubber. (2) If you use a wet scrubber of the non-venturi jet-ejector design, you're not required to install and operate a continuous parameter monitoring system for pressure drop.
	d. Any size	No electrostatic precipitator or wet scrubber.	Continous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent.

TABLE 3 TO SUBPART UUU OF PART 63.—CONTINOUS MONITORING SYSTEMS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS—Continued

[As stated in § 63.1564(b)(1), you must meet each requirement in the following table that applies to you]

For each new or existing catalytic cracking unit * * *	If your catalytic cracking unit is * * *	And you use this type of control device for your vent * * *	You must install, operate, and maintain a * * *
4. Option 3: Ni lb/hr not subject to the NSPS for PM in 40 CFR 60.102.	a. Over 20,000 barrels per day fresh feed capacity.	Electrostatic precipitator	Continous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent and continuous parameter monitoring system to measure and record the gas flow rate.
	b. Up to 20,000 barrels per day fresh feed capacity.	Electrostatic precipitator	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent and continuous parameter monitoring system to measure and record the gas flow rate; or continuous parameter monitoring systems to measure and record the gas flow rate and the voltage and secondary current (or total power input) to the control device.
	c. Any size	Wet scrubber	(1) Continuous parameter monitoring system to measure and record the pressure drop across the scrubber, gas flow rate to the scrubber, and total liquid (or scrubbing liquor) flow rate to the scrubber. (2) If you use a wet scrubber of the non-venturi jet-ejector, design, you're not required to install and operate a continuous parameter monitoring system for pressure drop.
	d. Any size	No electrostatic precipitator or wet scrubber.	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent and continuous parameter monitoring system to measure and record the gas flow rate.
5. Option 4: Ni lb/1,000 lbs of coke burn-off not subject to the NSPS for PM in 40 CFR 60.102.	a. Over 20,000 barrels per day fresh feed capacity.	Electrostatic precipitator	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent and continuous parameter monitoring system to measure and record the gas flow rate.
	b. Up to 20,000 barrels per day fresh feed capacity.	Electrostatic precipitator	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent and continuous parameter monitoring system to measure and record the gas flow rate; or continuous parameter monitoring systems to measure and record the gas flow rate and the voltage and secondary current (or total power input) to the control device.
	c. Any size	Wet scrubber	Continuous parameter monitoring system to measure and record the pressure drop across the scrubber, gas flow rate to the scrubber, and total liquid (or scrubbing liquor) flow rate to the scrubber.

TABLE 3 TO SUBPART UUU OF PART 63.—CONTINOUS MONITORING SYSTEMS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS—Continued

[As stated in § 63.1564(b)(1), you must meet each requirement in the following table that applies to you]

For each new or existing catalytic cracking unit * * *	If your catalytic cracking unit is * * *	And you use this type of control device for your vent * * *	You must install, operate, and maintain a * * *
	d. Any size	No electrostatic precipitator or wet scrubber	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent and continuous parameter monitoring system to measure and record the gas flow rate.

TABLE 4 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS NOT SUBJECT TO THE NEW SOURCE PERFORMANCE STANDARD (NSPS) FOR PARTICULATE MATTER (PM)

[As stated in § 63.1564(b)(2), you must meet each requirement in the following table that applies to you]

For each new or existing catalytic cracking unit catalyst regenerator vent * * *	You must * * *	Using * * *	According to these requirements * * *
1. If you elect Option 1 in item 2 of Table 1, Option 2 in item 3 of Table 1, Option 3 in item 4 of Table 1, or Option 4 in item 5 of Table 1 of this subpart.	a. Select sampling port's location and the number of traverse ports.	Method 1 or 1A in appendix A to part 60 of this chapter.	Sampling sites must be located at the outlet of the control device or the outlet of the regenerator, as applicable, and prior to any releases to the atmosphere.
	b. Determine velocity and volumetric flow rate.	Method 2, 2A, 2C, 2D, 2F, or 2G in appendix A to part 60 of this chapter, as applicable.	
	c. Conduct gas molecular weight analysis.	Method 3, 3A, or 3B in appendix A to part 60 of this chapter, as applicable.	
	d. Measure moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.	
	e. If you use an electro-static precipitator, record the total number of fields in the control system and how many operated during the applicable performance test.		
	f. If you use a wet scrubber, record the total amount (rate) of water (or scrubbing liquid) and the amount (rate) of make-up liquid to the scrubber during each test run.		
2. Option 1: Elect NSPS	a. Measure PM emissions	Method 5B or 5F (40 CFR part 60, appendix A) to determine PM emissions and associated moisture content for units without wet scrubbers. Method 5B (40 CFR part 60, appendix A) to determine PM emissions and associated moisture content for unit with wet scrubber.	You must maintain a sampling rate of at least 0.15 dry standard cubic meters per minute (dscm/min) (0.53 dry standard cubic feet per minute (dscf/min)).
	b. Compute PM emission rate (lbs/1,000 lbs) of coke burn-off.	Equations 1, 2, and 3 of § 63.1564 (if applicable).	
	c. Measure opacity of emissions.	Continuous opacity monitoring system.	You must collect opacity monitoring data every 10 seconds during the entire period of the initial Method 5 performance test and reduce the data to 6-minute averages.
3. Option 2: PM limit	a. Measure PM emissions	See item 2. of this table	See item 2. of this table.
	b. Compute coke burn-off rate and PM emission rate.	Equations 1 and 2 of § 63.1564	

TABLE 4 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS NOT SUBJECT TO THE NEW SOURCE PERFORMANCE STANDARD (NSPS) FOR PARTICULATE MATTER (PM)—Continued

[As stated in § 63.1564(b)(2), you must meet each requirement in the following table that applies to you]

For each new or existing catalytic cracking unit catalyst regenerator vent * * *	You must * * *	Using * * *	According to these requirements * * *
	c. Establish your site-specific opacity operating limit if you use a continuous opacity monitoring system.	Data from the continuous opacity monitoring system.	You must collect opacity monitoring data every 10 seconds during the entire period of the initial Method 5 performance test and reduce the data to 6-minute averages; determine and record the hourly average opacity from all the 6-minute averages; and compute the site-specific limit using Equation 4 of § 63.1564.
4. Option 3: Ni lb/hr	a. Measure concentration of Ni and total metal HAP.	Method 29 (40 CFR part 60, appendix A).	You must maintain a sampling rate of at least 0.028 dscm/min (0.74 dscf/min).
	b. Compute Ni emission rate (lb/hr).	Equation 5 of § 63.1564	
	c. Determine the equilibrium catalyst Ni concentration.	EPA Method 6010B or 6020 or EPA Method 7520 or 7521 in SW–846 [1]; or, you can use an alternative method satisfactory to the Administrator.	You must obtain 1 sample for each of the 3 runs; determine and record the average equilibrium catalyst Ni concentration for each of the 3 runs; and you may adjust the results for an individual run to the maximum value using Equation 1 of § 63.1571.
	d. If you use a continuous opacity monitoring system, establish your site-specific Ni operating limit.	i. Equations 6 and 7 of § 63.1564 using data from continuous opacity monitoring system, gas flow rate, results of equilibrium catalyst Ni concentration analysis, and Ni emission rate from Method 29 test.	(1) You must collect opacity monitoring data every 10 seconds during the entire period of the initial Ni performance test; reduce the data to 6-minute averages; and determine and record the hourly average opacity from all the 6-minute averages. (2) You must collect gas flow rate monitoring data every 15 minutes during the entire period of the initial Ni performance test; measure the gas flow as near as practical to the continuous opacity monitoring system; and determine and record the hourly average actual gas flow rate from all the readings.
5. Option 4: Ni lbs/1,000 lbs of coke burn-off.	a. Measure concentration of Ni and total metal HAP.	Method 29 (40 CFR part 60, appendix A).	You must maintain a sampling rate of at least 0.028 dscm/min (0.74 dscf/min).
	b. Compute Ni emission rate (lb/1,000 lbs of coke burn-off).	Equations 1 and 8 of § 63.1564.	
	c. Determine the equilibrium catalyst Ni concentration.	EPA Method 6010B or 6020 or EPA Method 7520 or 7521 (SW–846) [1]; or, you can use an alternative method satisfactory to the Administrator.	You must obtain 1 sample for each of the 3 runs; determine and record the equilibrium catalyst Ni concentration for each of the 3 samples; and you may adjust the laboratory results to the maximum value using Equation 2 of § 63.1571.

TABLE 4 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS NOT SUBJECT TO THE NEW SOURCE PERFORMANCE STANDARD (NSPS) FOR PARTICULATE MATTER (PM)—Continued

[As stated in § 63.1564(b)(2), you must meet each requirement in the following table that applies to you]

For each new or existing catalytic cracking unit catalyst regenerator vent * * *	You must * * *	Using * * *	According to these requirements * * *
	d. If you use a continuous opacity monitoring system, establish your site-specific Ni operating limit.	i. Equations 9 and 10 of § 63.1564 with data from continuous opacity monitoring system, coke burn-off rate, gas flow rate, results of equilibrium catalyst Ni concentration analysis, and Ni emission rate from Method 29 test.	(1) You must collect opacity monitoring data every 10 seconds during the entire period of the initial Ni performance test; reduce the data to 6-minute averages; and determine and record the hourly average opacity from all the 6-minute averages. (2) You must collect gas flow rate monitoring data every 15 minutes during the entire period of the initial Ni performance test; measure the gas flow rate as near as practical to the continuous opacity monitoring system; and determine and record the hourly average actual gas flow rate from all the readings.
	e. Record the catalyst addition rate for each test and schedule for the 10-day period prior to the test.		
6. If you elect Option 2 in Entry 3 in Table 1, Option 3 in Entry 4 in Table 1, or Option 4 in Entry 5 in Table 1 of this subpart and you use continuous parameter monitoring systems.	a. Establish each operating limit in Table 2 of this subpart that applies to you.	Data from the continuous parameter monitoring systems and applicable performance test methods.	
	b. Electrostatic precipitator or wet scrubber: gas flow rate.	Data from the continuous parameter monitoring systems and applicable performance test methods.	You must collect gas flow rate monitoring data every 15 minutes during the entire period of the initial performance test; and determine and record the maximum hourly average gas flow rate from all the readings.
	c. Electrostatic precipitator: voltage and secondary current (or total power input).	Data from the continuous parameter monitoring systems and applicable performance test methods.	You must collect voltage and secondary current (or total power input) monitoring data every 15 minutes during the entire period of the initial performance test; and determine and record the minimum hourly average voltage and secondary current (or total power input) from all the readings.
	d. Electrostatic precipitator or wet scrubber: equilibrium catalyst Ni concentration.	Results of analysis for equilibrium catalyst Ni concentration.	You must determine and record the average equilibrium catalyst Ni concentration for the 3 runs based on the laboratory results. You may adjust the value using Equation 1 or 2 of § 63.1571 as applicable.
	e. Wet scrubber: pressure drop (not applicable to non-venturi scrubber of jet ejector design).	Data from the continuous parameter monitoring systems and applicable performance test methods.	You must collect pressure drop monitoring data every 15 minutes during the entire period of the initial performance test; and determine and record the minimum hourly average pressure drop from all the readings.

TABLE 4 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS NOT SUBJECT TO THE NEW SOURCE PERFORMANCE STANDARD (NSPS) FOR PARTICULATE MATTER (PM)—Continued

[As stated in § 63.1564(b)(2), you must meet each requirement in the following table that applies to you]

For each new or existing catalytic cracking unit catalyst regenerator vent * * *	You must * * *	Using * * *	According to these requirements * * *
	f. Wet scrubber: liquid-to-gas ratio	Data from the continuous parameter monitoring systems and applicable performance test methods.	You must collect gas flow rate and total water (or scrubbing liquid) flow rate monitoring data every 15 minutes during the entire period of the initial performance test; determine and record the hourly average gas flow rate and total water (or scrubbing liquid) flow rate from all the readings; and determine and record the minimum liquid-to-gas ratio.
	g. Alternative procedure for gas flow rate.	Data from the continuous parameter monitoring systems and applicable performance test methods.	You must collect air flow rate monitoring data or determine the air flow rate using control room instrumentation every 15 minutes during the entire period of the initial performance test; determine and record the hourly average rate of all the readings; and determine and record the maximum gas flow rate using Equation 1 of § 63.1573.

[1] EPA Method 6010B, Inductively Coupled Plasma-Atomic Emission Spectrometry, EPA Method 6020, Inductively Coupled Plasma-Mass Spectrometry, EPA Method 7520, Nickel Atomic Absorption, Direct Aspiration, and EPA Method 7521, Nickel Atomic Absorption, Direct Aspiration are included in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, Revision 5 (April 1998). The SW–846 and Updates (document number 955–001–00000–1) are available for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512–1800; and from the National Technical Information Services (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 487–4650. Copies may be inspected at the Air and Radiation Docket and Information Center, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC; or at the Office of the Federal Register, 800 North Capitol Street, NW, Suite 700, Washington, DC.

TABLE 5 TO SUBPART UUU OF PART 63.—INITIAL COMPLIANCE WITH METAL HAP EMISSION LIMITS FOR CATALYTIC CRACKING UNITS

[As stated in § 63.1564(b)(5), you must meet each requirement in the following table that applies to you]

For each new and existing catalytic cracking unit catalyst regenerator vent * * *	For the following emission limit * * *	You have demonstrated initial compliance if * * *
1. Subject to the NSPS for PM in 40 CFR 60.102.	PM emissions must not exceed 1.0 kg/1,000 kg (1.0 lb/1,000 lb) of coke burn-off in the catalyst regenerator; if the discharged gases pass through an incinerator or waste heat boiler in which you burn auxiliary or supplemental liquid or solid fossil fuel, you must limit the incremental rate of PM to no more than 43.0 grams per Megajoule (g/MJ) or 0.10 pounds per million British thermal units (lb/million Btu) of heat input attributable to the liquid or solid fossil fuel; and the opacity of emissions 30 percent, except for one 6-minute average opacity reading in any 1-hour period.	You have already conducted a performance test to demonstrate initial compliance with the NSPS and the measured PM emission rate is less than or equal to 1.0 kg/1,000 kg (1.0 lb/1,000 lb) of coke burn-off in the catalyst regenerator. As part of the Notification of Compliance Status, you must certify that your vent meets the PM limit. You are not required to do another performance test to demonstrate initial compliance. If applicable, you have already conducted a performance test to demonstrate initial compliance with the NSPS and the measured PM rate is less than or equal to 43.0 g/MJ or 0.010 lb/million Btu of heat input attributable to the liquid or solid fossil fuel. As part of the Notification of Compliance Status, you must certify that your vent meets the PM emission limit. You are not required to do another performance test to demonstrate initial compliance. You have already conducted a performance test to demonstrate initial compliance with the NSPS and the average hourly opacity of emissions is no more than 30 percent. Except: one 6-minute average in any 1-hour period can exceed 30 percent. As part of the Notification of Compliance Status, you must certify that your vent meets the opacity limit. You are not required to do another performance test to demonstrate initial compliance. You have already conducted a performance evaluation to demonstrate initial compliance with the applicable performance specification. As part of your Notification of Compliance Status, you certify that your continuous opacity monitoring system meets the requirements in § 63.1572. You are not required to do a performance evaluation to demonstrate initial compliance.
2. Option 1: Elect NSPS not subject to the NSPS for PM.	PM emissions must not exceed 1.0 kg/1,000 kg (1.0 lb/1,000 lb) of coke burn-off in the catalyst regenerator; if the discharged gases pass through an incinerator or waste heat boiler in which you burn auxiliary or supplemental liquid or solid fossil fuel, you must limit the incremental rate of PM to no more than 43.0 grams per Megajoule (g/MJ) or 0.10 pounds per million British thermal units (lb/million Btu) of heat input attributable to the liquid or solid fossil fuel; and the opacity of emissions must not exceed 30 percent, except for one 6-minute average opacity reading in any 1-hour period.	The average PM emission rate, measured using EPA method 5 over the period of the initial performance test, is no higher than 1.0 kg/1,000 kg (1.0 lb/1,000 lbs) of coke burn-off in the catalyst regenerator. The PM emission rate is calculated using Equations 1 and 2 of the § 63.1564. If applicable, the average PM emission rate, measured using EPA Method 5 over the period of the initial performance test, is no higher than 43.0 g/MJ or 0.010 lb/million Btu of heat input attributable to the liquid or solid fossil fuel. The PM emission rate is calculated using Equation 3 of § 63.1564; no more than one 6-minute average measured by the continuous opacity monitoring system exceeds 30 percent opacity in any 1-hour period over the period of the performance test; and your performance evaluation shows the continuous opacity monitoring system meets the applicable requirements in § 63.1572.

TABLE 5 TO SUBPART UUU OF PART 63.—INITIAL COMPLIANCE WITH METAL HAP EMISSION LIMITS FOR CATALYTIC CRACKING UNITS—Continued

[As stated in § 63.1564(b)(5), you must meet each requirement in the following table that applies to you]

For each new and existing catalytic cracking unit catalyst regenerator vent * * *	For the following emission limit * * *	You have demonstrated initial compliance if * * *
3. Option 2: not subject to the NSPS for PM	PM emissions must not exceed 1.0 kg/1,000 kg (1.0 lb/1,000 lb) of coke burn-off in the catalyst regenerator.	The average PM emission rate, measured using EPA Method 5 over the period of the initial performance test, is less than or equal to 1.0 kg/1,000 kg (1.0 lb/1,000 lbs) of coke burn-off in the catalyst regenerator. The PM emission rate is calculated using Equations 1 and 2 of § 63.1564; and if you use a continuous opacity monitoring system, your performance evaluation shows the system meets the applicable requirements in § 63.1572.
4. Option 3: not subject to the NSPS for PM	Nickel (Ni) emissions from your catalyst regenerator vent must not exceed 13,000 mg/hr (0.029 lb/hr).	The average Ni emission rate, measured using Method 29 over the period of the initial performance test, is not more than 13,000 mg/hr (0.029 lb/hr). The Ni emission rate is calculated using Equation 5 of § 63.1564; and if you use a continuous opacity monitoring system, your performance evaluation shows the system meets the applicable requirements in § 63.1572.
5. Option 4: Ni lb/1,000 lbs of coke burn-off not subject to the NSPS for PM.	Ni emissions from your catalyst regenerator vent must not exceed 1.0 mg/kg (0.001 lb/1,000 lbs) of coke burn-off in the catalyst regenerator.	The average Ni emission rate, measured using Method 29 over the period of the initial performance test, is not more than 1.0 mg/kg (0.001 lb/1,000 lbs) of coke burn-off in the catalyst regenerator. The Ni emission rate is calculated using Equation 8 of § 63.1564; and if you use a continuous opacity monitoring system, your performance evaluation shows the system meets the applicable requirements in § 63.1572.

TABLE 6 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH METAL HAP EMISSION LIMITS FOR CATALYTIC CRACKING UNITS

[As stated in § 63.1564(c)(1), you must meet each requirement in the following table that applies to you]

For each new and existing catalytic cracking unit * * *	Subject to this emission limit for your catalyst regenerator vent * * *	You must demonstrate continuous compliance by * * *
1. Subject to the NSPS for PM in 40 CFR 60.102.	a. PM emissions must not exceed 1.0 lb/1,000 lbs of coke burn-off in the catalyst regenerator; if the discharged gases pass through an incinerator or waste heat boiler in which you burn auxiliary or supplemental liquid or solid fossil fuel, incremental rate of PM can't exceed 43.0 g/MJ (0.10 lb/million Btu) of heat input attributable to the liquid or solid fossil fuel; and opacity of emissions can't exceed 30 percent, except for one 6-minute average opacity reading in any 1-hour period.	i. Determining and recording each day the average coke burn-off rate (thousands of kilograms per hour) using Equation 2 in § 63.1564 and the hours of operation for each catalyst regenerator; maintaining PM emission rate below 1.0 kg/1,000 kg (1.0 lb/1,000 lbs) of coke burn-off; if applicable, determining and recording each day the rate of combustion of liquid or solid fossil fuels (liters/hour or kilograms/hour) using Equation 3 of § 63.1564 and the hours of operation during which liquid or solid fossil-fuels are combusted in the incinerator-waste heat boiler; if applicable, maintaining PM rate below 43 g/MJ (0.10 lb/million Btu) of heat input attributable to the solid or liquid fossil fuel; collecting the continuous opacity monitoring data for each catalyst regenerator vent according to § 63.1572; and maintaining each 6-minute average at or below 30 percent except that one 6-minute average during a 1-hour period can exceed 30 percent.
2. Option 1: Elect NSPS not subject to the NSPS for PM in 40 CFR 60.102.	See item 1.a. of this table	See item 1.a.i. of this table.

TABLE 6 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH METAL HAP EMISSION LIMITS FOR CATALYTIC CRACKING UNITS—Continued

[As stated in § 63.1564(c)(1), you must meet each requirement in the following table that applies to you]

For each new and existing catalytic cracking unit * * *	Subject to this emission limit for your catalyst regenerator vent * * *	You must demonstrate continuous compliance by * * *
3. Option 2: PM limit not subject to the NSPS for PM.	PM emissions must not exceed 1.0 lb/1,000 lbs of coke burn-off in the catalyst regenerator.	Determining and recording each day the average coke burn-off rate (thousands of kilograms per hour) and the hours of operation for each catalyst regenerator by Equation 2 of § 63.1564. You can use process data to determine the volumetric flow rate; and maintaining PM emission rate below 1.0 kg/1,000 kg (1.0 lb/1,000 lbs) of coke burn-off.
4. Option 3: Ni lb/hr not subject to the NSPS for PM.	Ni emissions must not exceed 13,000 mg/hr (0.029 lb/hr).	Maintaining Ni emission rate below 13,000 mg/hr (0.029 lb/hr).
5. Option 4: Ni lb/1,000 lbs of coke burn-off not subject to the NSPS for PM.	Ni emissions must not exceed 1.0 mg/kg (0.001 lb/1,000 lbs) of coke burn-off in the catalyst regenerator.	Determining and recording each day the average coke burn-off rate (thousands of kilograms per hour) and the hours of operation for each catalyst regenerator by Equation 2 of § 63.1564. You can use process data to determine the volumetric flow rate; and maintaining Ni emission rate below 1.0 mg/kg (0.001 lb/1,000 lbs) of coke burn-off in the catalyst regenerator.

TABLE 7 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS

[As stated in § 63.1564(c)(1), you must meet each requirement in the following table that applies to you]

For each new or existing catalytic cracking unit * * *	If you use * * *	For this operating limit * * *	You must demonstrate continuous compliance by * * *
1. Subject to NSPS for PM in 40 CFR 60.102.	Continuous opacity monitoring system.	Not applicable	Complying with Table 6 of this subpart.
2. Option 1: Elect NSPS not subject to the NSPS for PM in 40 CFR 60.102.	Continuous opacity monitoring system.	Not applicable	Complying with Table 6 of this subpart.
3. Option 2: PM limit not subject to the NSPS for PM in 40 CFR 60.102.	a. Continuous opacity monitoring system.	The opacity of emissions from your catalyst regenerator vent must not exceed the site-specific opacity operating limit established during the performance test	Collecting the hourly average continuous opacity monitoring system data according to § 63.1572; and maintaining each 6-minute average in each 1-hour period at or below the site-specific limit.
	b. Continuous parameter monitoring systems—electrostatic precipitator.	i. The daily average gas flow rate to the control device must not exceed the operating limit established during the performance test.	Collecting the hourly and daily average gas flow rate monitoring data according to § 63.1572 [1]; and maintaining the daily average gas flow rate at limit or below the established during the performance test.
		ii. The daily average voltage and secondary current (or total power input) to the control device must not fall below the operating limit established during the performance test.	Collecting the hourly and daily average voltage and secondary current (or total power input) monitoring data according to § 63.1572; and maintaining the daily average voltage and secondary current (or total power input) at or above the limit established during the performance test.
	c. Continuous parameter monitoring systems—wet scrubber.	i. The daily average pressure drop across the scrubber must not fall below the operating limit established during the performance test.	Collecting the hourly and daily average pressure drop monitoring data according to § 63.1572; and maintaining the daily average press drop above the limit established during the performance test.

TABLE 7 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS—Continued

[As stated in § 63.1564(c)(1), you must meet each requirement in the following table that applies to you]

For each new or existing catalytic cracking unit * * *	If you use * * *	For this operating limit * * *	You must demonstrate continuous compliance by * * *
		ii. The daily average liquid-to-gas ratio must not fall below the operating limit established during the performance test.	Collecting the hourly average gas flow rate and water (or scrubbing liquid) flow rate monitoring data according to § 63.1572 [1]; determining and recording the hourly average liquid-to-gas ratio; determining and recording the daily average liquid-to-gas ratio; and maintaining the daily average liquid-to-gas ratio above the limit established during the performance test.
4. Option 3: Ni lb/hr not subject to the NSPS for PM in 40 CFR 60.102.	a. Continuous opacity monitoring system.	The daily average Ni operating value must not exceed the site-specific Ni operating limit established during the performance test.	Collecting the hourly average continuous opacity monitoring system data according § 63.1572; determining and recording equilibrium catalyst Ni concentration at least once a week collecting the hourly average gas flow rate monitoring data according to § 63.1572 [1]; determining and recording the hourly average Ni operating value using Equation 11 of § 63.1564; determining and recording the daily average Ni operating value; and maintaining the daily average Ni operating value below the site-specific Ni operating limit established the performance test.
	b. Continuous parameter monitoring systems—electrostatic precipitator.	i. The daily average gas flow rate to the control device must notice exceed the level established in the performance test.	See item 3.b.i. of this table.
		ii. The daily average voltage and secondary current (or total power input) must not fall below the level established in the performance test.	See item 3.b.ii. of this table.
		iii. The monthly rolling average of equilibrium catalyst Ni concentration must not exceed the level established during the performance test.	Determining the recording the equilibrium catalyst Ni concentration at least once a week; determining and recording the monthly rolling average of the equilibrium catalyst Ni concentration once each week using the weekly or most recent value; and maintaining the monthly rolling average below the limit established in the performance test
	c. Continuous parameter monitoring systems—wet scrubber.	i. The daily average pressure drop must not fall below the operating limit established in the performance test.	See item 3.c.i. of this table.
		ii. The daily average liquid-to-gas ratio must not fall below the operating limit established during the performance test.	See item 3.c.ii. of this table.

TABLE 7 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS—Continued

[As stated in § 63.1564(c)(1), you must meet each requirement in the following table that applies to you]

For each new or existing catalytic cracking unit * * *	If you use * * *	For this operating limit * * *	You must demonstrate continuous compliance by * * *
		iii. The monthly rolling average equilibrium catalyst Ni concentration must not exceed the level established during the performance test.	Determining and recording the equilibrium catalyst Ni concentration at least once a week; determining and recording the monthly rolling average of equilibrium catalyst Ni concentration once each week using the weekly or most recent value; and maintaining the monthly rolling average below the limit established in the performance test.
5. Option 4: Ni lb/ton of coke burn-off not subject to the NSPS for PM in 40 CFR 60.102	a. Continuous opacity monitoring system.	The daily average Ni operating value must not exceed the site-specific Ni operating limit established during the performance test.	Collecting the hourly average continuous opacity monitoring system data according to § 63.1572; collecting the hourly average gas flow rate monitoring data according to § 63.1572 [1]; determining and recording equilibrium catalyst Ni concentration at least once a week; determining and recording the hourly average Ni operating value using Equation 12 of § 63.1564; determining and recording the daily average Ni operating value; and maintaining the daily average Ni operating value below the site-specific Ni operating limit established during the performance test.
	b. Continuous parameter monitoring systems—electrostatic precipitator.	i. The daily average gas flow rate to the control device must not exceed the level established in the performance test.	See item 3.b.i. of this table.
		ii. The daily average voltage and secondary current (or total power input) must not fall below the level established in the performance test.	See item 3.b.ii. of this table.
		iii. The monthly rolling average equilibrium catalyst Ni concentration must not exceed the level established during the performance test.	See item 4.b.iii. of this table.
	c. Continuous parameter monitoring systems—wet scrubber.	i. The daily average pressure drop must not fall below the operating limit established in the performance test.	See item 3.c.i. of this table.
		ii. The daily average liquid-to-gas ratio must not fall below the operating limit established during the performance test. See item 3.c.ii. of this table.	
		iii. The monthly rolling average equilibrium catalyst Ni concentration must not exceed the level established during the performance test.	See item 4.c.iii. of this table.

[1] If applicable, you can use the alternative in § 63.1573 for gas flow rate instead of a continuous parameter monitoring system if you used the alternative method in the initial performance test. If so, you must continuously monitor and record the air flow rate to the regenerator and the temperature of the gases entering the control device as described in § 63.1573. You must determine and record the hourly average gas flow rate using Equation 1 of § 63.1573 and the daily average gas flow rate. You must maintain the daily average gas flow rate below the operating limit established during the performance test.

TABLE 8 TO SUBPART UUU OF PART 63.—ORGANIC HAP EMISSION LIMITS FOR CATALYTIC CRACKING UNITS

[As stated in § 63.1565(a)(1), you must meet each emission limitation in the following table that applies to you]

For each new and existing catalytic cracking unit * * *	You must meet the following emission limit for each catalyst regenerator vent * * *
1. Subject to the NSPS for carbon monoxide (CO) in 40 CFR 60.103.	CO emissions from the catalyst regenerator vent or CO boiler serving the catalytic cracking unit must not exceed 500 parts per million volume (ppmv) (dry basis).
2. Not subject to the NSPS for CO in 40 CFR 60.103.	a. CO emissions from the catalyst regenerator vent or CO boiler serving the catalytic cracking unit must not exceed 500 ppmv (dry basis). b. If you use a flare to meet the CO limit, the flare must meet the requirements for control devices in § 63.11(b): visible emissions must not exceed a total of 5 minutes during any 2 consecutive hours.

TABLE 9 TO SUBPART UUU OF PART 63.—OPERATING LIMITS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC CRACKING UNITS

[As stated in § 63.1565(a)(2), you must meet each operating limit in the following table that applies to you]

For each new or existing catalytic cracking unit * * *	For this type of continuous monitoring system * * *	For this type of control device * * *	You must meet this operating limit * * *
1. Subject to the NSPS for carbon monoxide (CO) in 40 CFR 60.103.	Continuous emission monitoring system.	Not applicable	Not applicable.
2. Not subject to the NSPS for CO in 40 CFR 60.103.	a. Continuous emission monitoring system.	Not applicable	Not applicable.
	b. Continuous parameter monitoring systems.	i. Thermal incinerator	Maintain the daily average combustion zone temperature above the limit established during the performance test; and maintain the daily average oxygen concentration in the vent stream (percent, dry basis) above the limit established during the performance test.
		ii. Boiler or process heater with a design heat input capacity under 44 MW or a boiler or process heater in which all vent streams are not introduced into the flame zone.	Maintain the daily average combustion zone temperature above the limit established in the performance test.
		iii. Flare	The flare pilot light must be present at all times and the flare must be operating at all times that emissions may be vented to it.

TABLE 10 TO SUBPART UUU OF PART 63.—CONTINUOUS MONITORING SYSTEMS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC CRACKING UNITS

[As stated in § 63.1565(b)(1), you must meet each requirement in the following table that applies to you]

For each new or existing catalytic cracking unit * * *	And you use this type of control device for your vent * * *	You must install, operate, and maintain this type of continuous monitoring system * * *
1. Subject to the NSPS for carbon monoxide (CO) in 40 CFR 60.103.	Not applicable	Continuous emission monitoring system to measure and record the concentration by volume (dry basis) of CO emissions from each catalyst regenerator vent.
2. Not subject to the NSPS for CO in 40 CFR 60.103.	a. Thermal incinerator	Continuous emission monitoring system to measure and record the concentration by volume (dry basis) of CO emissions from each catalyst regenerator vent; or continuous parameter monitoring systems to measure and record the combustion zone temperature and oxygen content (percent, dry basis) in the incinerator vent stream.
	b. Process heater or boiler with a design heat input capacity under 44 MW or process heater or boiler in which all vent streams are not introduced into the flame zone.	Continuous emission monitoring system to measure and record the concentration by volume (dry basis) of CO emissions from each catalyst regenerator vent; or continuous parameter monitoring systems to measure and record the combustion zone temperature.

TABLE 10 TO SUBPART UUU OF PART 63.—CONTINUOUS MONITORING SYSTEMS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC CRACKING UNITS—Continued

[As stated in § 63.1565(b)(1), you must meet each requirement in the following table that applies to you]

For each new or existing catalytic cracking unit * * *	And you use this type of control device for your vent * * *	You must install, operate, and maintain this type of continuous monitoring system * * *
	c. Flare	Monitoring device such as a thermocouple, an ultraviolet beam sensor, or infrared sensor to continuously detect the presence of a pilot flame.
	d. No control device	Continuous emission monitoring system to measure and record the concentration by volume (dry basis) of CO emissions from each catalyst regenerator vent.

TABLE 11 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC CRACKING UNITS NOT SUBJECT TO NEW SOURCE PERFORMANCE STANDARD (NSPS) FOR CARBON MONOXIDE (CO)

[As stated in § 63.1565(b)(2) and (3), you must meet each requirement in the following table that applies to you]

For * * *	You must * * *	Using * * *	According to these requirements * * *
1. Each new or existing catalytic cracking unit catalyst regenerator vent.	a. Select sampling port's location and the number of traverse ports.	Method 1 or 1A in appendix A to part 60 of this chapter.	Sampling sites must be located at the outlet of the control device or the outlet of the regenerator, as applicable, and prior to any releases to the atmosphere.
	b. Determine velocity and volumetric flow rate.	Method 2, 2A, 2D, 2F, or 2G in appendix A to part 60 of this chapter, as applicable.	
	c. Conduct gas molecular weight analysis.	Method 3, 3A, or 3B in appendix A to part 60 of this chapter, as applicable.	
	d. Measure moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.	
2. For each new or existing catalytic cracking unit catalyst regenerator vent if you use a continuous emission monitoring system.	Measure CO emissions	Data from your continuous emission monitoring system.	Collect CO monitoring data for each vent for 24 consecutive operating hours; and reduce the continuous emission monitoring data to 1-hour averages computed from four or more data points equally spaced over each 1-hour period.
3. Each catalytic cracking unit catalyst regenerator vent if you use continuous parameter monitoring systems.	a. Measure the CO concentration (dry basis) of emissions exiting the control device.	Method 10, 10A, or 10B in appendix A to part 60 of this chapter, as applicable.	
	b. Establish each operating limit in Table 9 of this subpart that applies to you.	Data from the continuous parameter monitoring systems.	
	c. Thermal incinerator combustion zone temperature.	Data from the continuous parameter monitoring systems.	Collect temperature monitoring data every 15 minutes during the entire period of the CO initial performance test; and determine and record the minimum hourly average combustion zone temperature from all the readings.
	d. Thermal incinerator: oxygen, content (percent, dry basis) in the incinerator vent stream.	Data from the continuous parameter monitoring systems.	Collect oxygen concentration (percent, dry basis) monitoring data every 15 minutes during the entire period of the CO initial performance test; and determine and record the minimum hourly average percent excess oxygen concentration from all the readings.

TABLE 11 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC CRACKING UNITS NOT SUBJECT TO NEW SOURCE PERFORMANCE STANDARD (NSPS) FOR CARBON MONOXIDE (CO)—Continued

[As stated in § 63.1565(b)(2) and (3), you must meet each requirement in the following table that applies to you]

For * * *	You must * * *	Using * * *	According to these requirements * * *
	e. If you use a process heater or boiler with a design heat input capacity under 44 MW or process heater or boiler in which all vent streams are not introduced into the flame zone, establish operating limit for combustion zone temperature.	Data from the continuous parameter monitoring systems.	Collect the temperature monitoring data every 15 minutes during the entire period of the CO initial performance test; and determine and record the minimum hourly average combustion zone temperature from all the readings.
	f. If you use a flare, conduct visible emission observations.	Method 22 (40 CFR part 60, appendix A).	Maintain a 2-hour observation period; and record the presence of a flame at the pilot light over the full period of the test.
	g. If you use a flare, determine that the flare meets the requirements for net heating value of the gas being combusted and exit velocity.	40 CFR 60.11(b)(6)through(8).	

TABLE 12 TO SUBPART UUU OF PART 63.—INITIAL COMPLIANCE WITH ORGANIC HAP EMISSION LIMITS FOR CATALYTIC CRACKING UNITS

[As stated in § 63.1565(b)(4), you must meet each requirement in the following table that applies to you]

For each new and existing catalytic cracking unit * * *	For the following emission limit * * *	You have demonstrated initial compliance if * * *
1. Subject to the NSPS for carbon monoxide (CO) in 40 CFR 60.103.	CO emissions from your catalyst regenerator vent or CO boiler serving the catalytic cracking unit must not exceed 500 ppmv (dry basis).	You have already conducted a performance test to demonstrate initial compliance with the NSPS and the measured CO emissions are less than or equal to 500 ppm (dry basis). As part of the Notification of Compliance Status, you must certify that your vent meets the CO limit. You are not required to conduct another performance test to demonstrate initial compliance. You have already conducted a performance evaluation to demonstrate initial compliance with the applicable performance specification. As part of your Notification of Compliance Status, you must certify that your continuous emission monitoring system meets the applicable requirements in § 63.1572. You are not required to conduct another performance evaluation to demonstrate initial compliance.
2. Not subject to the NSPS for CO in 40 CFR 60.103.	a. CO emissions from your catalyst regenerator vent or CO boiler serving the catalytic cracking unit must not exceed 500 ppmv (dry basis).	i. If you use a continuous parameter monitoring system, the average CO emissions measured by Method 10 over the period of the initial performance test are less than or equal to 500 ppmv (dry basis). ii. If you use a continuous emission monitoring system, the hourly average CO emissions over the 24-hour period for the initial performance test are not more than 500 ppmv (dry basis); and your performance evaluation shows your continuous emission monitoring system meets the applicable requirements in § 63.1572.
	b. If you use a flare, visible emissions must not exceed a total of 5 minutes during any 2 operating hours.	Visible emissions, measured by Method 22 during the 2-hour observation period during the initial performance test, are no higher than 5 minutes.

TABLE 13 TO SUBPART UUU OF PART 63—CONTINUOUS COMPLIANCE WITH ORGANIC HAP EMISSION LIMITS FOR CATALYTIC CRACKING UNITS

[As stated in § 63.1565(c)(1), you must meet each requirement in the following table that applies to you]

For each new and existing catalytic cracking unit * * ;*	Subject to this emission limit for your catalyst regenerator vent * * *	If you must * * *	You must demonstrate continuous compliance by * * *
1. Subject to the NSPS for carbon monoxide (CO) in 40 CFR 60.103.	CO emissions from your catalyst regenerator vent or CO boiler serving the catalytic cracking unit must not exceed 500 ppmv (dry basis).	Continuous emission monitoring system.	Collecting the hourly average CO monitoring data according to § 63.1572; and maintaining the hourly average CO concentration at or below 500 ppmv (dry basis).
2. Not subject to the NSPS for CO in 40 CFR 60.103.	i. CO emissions from your catalyst regenerator vent or CO boiler serving the catalytic cracking unit must not exceed 500 ppmv (dry basis).	Continuous emission monitoring system.	Same as above.
	ii. CO emissisons from your catalyst regenerator vent or CO boiler serving the catalytic cracking unit must not exceed 500 ppmv (dry basis).	Continuous parameter monitoring system.	Maintaining the hourly average CO concentration below 500 ppmv (dry basis).
	iii. Visible emissions from a flare must not exceed a total of 5 minutes during any 2-hour period.	Control device-flare	Maintaining visible emissions below a total of 5 minutes during any 2-hour operating period.

TABLE 14 TO SUBPART UUU OF PART 63—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC CRACKING UNITS

[As stated in § 63.1565(c)(1), you must meet each requirement in the following table that applies to you]

For each new existing catalytic cracking unit * * *	If you use * * *	For this operating limit * * *	You must demonstrate continuous compliance by * * *
1. Subject to NSPS for carbon monoxide (CO) in 40 CFR 60.103.	Continuous emission monitoring system.	Not applicable	Complying with Table 13 of this subpart.
2. Not subject to the NSPS for CO in 40 CFR 60.103.	a. Continuous emission monitoring system.	Not applicable	Complying with Table 13 of this subpart.
	b. Continuous parameter monitoring systems—thermal incinerator.	i. The daily average combustion zone temperature must not fall below the level established during the performance test.	Collecting the hourly and daily average temperature monitoring data according to § 63.1572; and maintaining the daily average combustion zone temperature above the limit established during the performance test.
		ii. The daily average oxygen concentration in the vent stream (percent, dry basis) must not fall below the level established during the performance test.	Collecting the hourly and daily average oxygen concentration monitoring data according to § 63.1572; and maintaining the daily average oxygen concentration above the limit established during the performance test.
	c. Continuous parameter monitoring systems—boiler or process heater with a design heat input capacity under 44 MW or boiler or process heater in which all vent streams are not introduced into the flame zone.	The daily combustion zone temperature must not fall below the level established in the performance test.	Collecting the average hourly and daily temperature monitoring data according to § 63.1572; and maintaining the daily average combustion zone temperature above the limit established during the performance test.
	d. Continuous parameter monitoring system—flare.	The flare pilot light must be present at all times and the flare must be operating at all times that emissions may be vented to it.	Collecting the flare monitoring data according to § 63.1572; and recording for each 1-hour period whether the monitor was continuously operating and the pilot light was continuously present during each 1-hour period.

TABLE 15 TO SUBPART UUU OF PART 63.—ORGANIC HAP EMISSION LIMITS FOR CATALYTIC REFORMING UNITS

[As stated in § 63.1566(a)(1), you must meet each emission limitation in the following table that applies to you]

For each new or existing catalytic reforming unit * * *	You must meet this emission limit for each process vent during depressuring and purging operation * * *
1. Option 1	Vent emissions to a flare that meets the requirements for control devices in § 63.11(b). Visible emissions from a flare must not exceed a total of 5 minutes during any 2-hour operating period.
2. Option 2	Using a control device, reduce uncontrolled emissions of total organic compounds (TOC) from your process vent by 98 percent by weight or to a concentration of 20 ppmv (dry basis), corrected to 3 percent oxygen, whichever is less stringent. If you vent emissions to a boiler or process heater to comply with the percent reduction or concentration emission limitation, the vent stream must be introduced into the flame zone, or any other location that will achieve the percent reduction or concentration standard.

TABLE 16 TO SUBPART UUU OF PART 63.—OPERATING LIMITS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS

[As stated in § 63.1566(a)(2), you must meet each operating limit in the following table that applies to you]

For each new or existing catalytic reforming unit * * *	For this type of control device * * *	You must meet this operating limit during depressuring and purging operations * * *
1. Option 1: vent to flare	Flare that meets the requirements for control devices in § 63.11(b).	The flare pilot light must be present at all times and the flare must be operating at all times that emissions may be vented to it.
2. Option 2: percent reduction or concentration limit.	Thermal incinerator, boiler or process heater with a design heat input capacity under 44 MW, or boiler or process heater in which all vent streams are not introduced into the flame zone.	The daily average combustion zone temperature must not fall below the limit established during the performance test.

TABLE 17 TO SUBPART UUU OF PART 63.—CONTINUOUS MONITORING SYSTEMS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS

[As stated in § 63.1566(b)(1), you must meet each requirement in the following table that applies to you]

For each new or exiting catalytic reforming unit * * *	If you use this type of control device * * *	You must install and operate this type of continuous monitoring system * * *
1. Option 1: vent to a flare	Flare that meets the requirements for control devices in § 63.11(b).	Monitoring device such as a thermocouple, an ultraviolet beam sensor, or infrared sensor to continuously detect the presence of a pilot flame.
2. Option 2: percent reduction or concentration limit.	Thermal incinerator, process heater or boiler with a design heat input capacity under 44 MW, or process heater or boiler in which all vent streams are not introduced into the flame zone.	Continuous parameter monitoring systems to measure and record the combustion zone temperature.

TABLE 18 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS

[As stated in § 63.1566(b)(2) and (3), you must meet each requirement in the following table that applies to you]

For each new or exiting catalytic reforming unit * * *	You must * * *	Using * * *	According to these requirements * * *
1. Option 1: vent to a flare.	a. Conduct visible emission observations.	Method 22 (40 CFR 60, appendix A).	2-hour observation period. Record the presence of a flame at the pilot light over the full period of the test.
	b. Determine that the flare meets the requirements for net heating value of the gas being combusted and exit velocity.	Not applicable	40 CFR 60.11(b)(6) through (8).
2. Option 2: percent reduction or concentration limit.	a. Select sampling site	Method 1 or 1A (40 CFR part 60, appendix A). No traverse site selection method is needed for vents smaller than 0.10 meter in diameter.	Sampling sites must be located at the inlet (if you elect the emission reduction standard) and outlet of the control device and prior to any releases to the atmosphere.

TABLE 18 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS—Continued

[As stated in § 63.1566(b)(2) and (3), you must meet each requirement in the following table that applies to you]

For each new or exiting catalytic reforming unit * * *	You must * * *	Using * * *	According to these requirements * * *
	b. Measure gas volumetric flow rate.	Method 2, 2A, 2C, 2D, 2F, or 2G (40 CFR part 60, appendix A), as applicable.	
	c. Measure TOC concentration (for percent reduction standard).	Method 25 (40 CFR part 60, appendix A) to measure TOC concentration at the inlet and outlet of the control device. If the TOC outlet concentration is expected to be less than 50 ppm, you can use Method 25A to measure TOC concentration at the inlet and the outlet of the control device.	Take either an integrated sample or four grab samples during each run. If you use a grab sampling technique, take the samples at approximately equal intervals in time, such as 15-minute intervals during the run.
	d. Calculate TOC emission rate and mass emission reduction.	Calculate emission rate by Equation 1 of § 63.1566 (if you use Method 25) or Equation 2 of § 63.1566 (if you use Method 25A). Calculate mass emission reduction by Equation 3 of § 63.1566.	
	e. Measure TOC concentration (for concentration standard).	Method 25A (40 CFR part 60, appendix A) to measure TOC concentration at the outlet of the control device.	
	f. Determine oxygen content in the gas stream at the outlet of the control device.	Method 3A or 3B (40 CFR part 60, appendix A), as applicable.	
	g. Correct the measured TOC concentration for oxygen content.	Equation 4 of § 63.1566	
	h. Established each operating limit in Table 16 of this subpart that applies to you for a thermal incinerator, or process heater or boiler with a design heat input capacity under 44 MW, or process heater or boiler in which all vent streams are not introduced into the flame zone.	Data from the continuous parameter monitoring systems.	Collect the temperature monitoring data every 15 minutes during the entire period of the initial TOC performance test. Determine and record the minimum hourly average combustion zone temperature.

TABLE 19 TO SUBPART UUU OF PART 63—INITIAL COMPLIANCE WITH ORGANIC HAP EMISSION LIMITS FOR CATALYTIC REFORMING UNITS

[As stated in § 63.1566(b)(7), you must meet each requirement in the following table that applies to you.]

For . . .	For the following emission limit . . .	You have demonstrated initial compliance if . . .
1. Each new and existing catalytic reforming unit.	a. Visible emissions from a flare must not exceed a total of 5 minutes during any 2 consecutive hours.	Visible emissions, measured using Method 22 over the 2-hour observation period of the performance test do not exceed a total of 5 minutes.
	b. Reduce uncontrolled emissions of TOC from your process vent using a control device, by 98 percent by weight or to a concentration of 20 ppmv, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent.	The mass emission reduction measured using Method 25 over the period of the performance test, is at least 98 percent by weight. The mass emission reduction is calculated using Equations 1 (or 2) and 3 of § 63.1566 or the TOC concentration, measured by Method 25A over the period of the performance test, does not exceed 20 ppmv (dry basis), corrected to 3 percent oxygen using Equation 4 of § 63.1566.

TABLE 20 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH ORGANIC HAP EMISSION LIMITS FOR CATALYTIC REFORMING UNITS

[As stated in § 63.1566(c)(1), you must meet each requirement in the following table that applies to you]

For * * *	For this emission limit * * *	You must demonstrate continuous compliance during depressuring and purging by * * *
1. Option 1: Each new or existing catalytic reforming unit.	Vent emissions from your process vent to a flare that meets the requirements in § 63.11(b).	Maintaining visible emissions from a flare below a total of 5 minutes during any 2 consecutive hours.
2. Option 2: Each new or existing catalytic reforming unit.	Using a control device, reduce uncontrolled emissions of TOC from your process vent by 98 percent by weight or to a concentration of 20 ppmv, (dry basis), corrected to 3 percent oxygen, whichever is less stringent.	Maintaining a 98 percent by weight TOC emission reduction; or maintaining a TOC concentration of not more than 20 ppmv (dry basis), corrected to 3 percent oxygen, whichever is less stringent.

TABLE 21 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS

[As stated in § 63.1566(c)(1), you must meet each requirement in the following table that applies to you]

For * * *	If you use * * *	For this operating limit * * *	You must demonstrate continuous compliance during depressuring and purging by * * *
1. Each new or existing catalytic reforming unit.	a. Flare that meets the requirements in § 63.11(b).	The flare pilot light must be present at all times and the flare must be operating at all times that emissions may be vented to it.	Collecting flare monitoring data according to § 63.1572; and recording for each 1-hour period whether the monitor was continuously operating and the pilot light was continuously present during each 1-hour period.
	b. Thermal incinerator, boiler or process heater with a design input capacity under 44 MW or boiler or process heater in which all vent streams are not introduced into the flame zone.	Maintain the daily average combustion zone temperature above the limit established during the performance test.	Collecting the hourly and daily temperature monitoring data according to § 63.1572; and maintaining the daily average combustion zone temperature above the limit established during the performance test.

TABLE 22 TO SUBPART UUU OF PART 63—INORGANIC HAP EMISSION LIMITS FOR CATALYTIC REFORMING UNITS

[As stated in § 63.1567(a)(1), you must meet each emission limitation in the following table that applies to you]

For * * *	You must meet this emission limit for your process vent during coke burn-off and catalyst rejuvenation * * *
1. Each existing semi-regenerative catalytic reforming unit.	Reduce uncontrolled emissions of hydrogen chloride (HC1) by 92 percent by weight using a control device or to a concentration of 30 ppmv (dry basis), corrected to 3 percent oxygen.
2. Each existing cyclic or continuous catalytic reforming unit.	Reduce uncontrolled emissions of HC1 by 97 percent by weight using a control device or to a concentration of 10 ppmv (dry basis), corrected to 3 percent oxygen.
3. Each new semi-regenerative, cyclic, or continuous catalytic reforming unit.	Reduce uncontrolled emissions of HC1 by 97 percent by weight using a control device or to a concentration of 10 ppmv (dry basis), corrected to 3 percent oxygen.

TABLE 23 TO SUBPART UUU OF PART 63.—OPERATING LIMITS FOR INORGANIC HAP EMISSION LIMITATIONS FOR CATALYTIC REFORMING UNITS

[As stated in § 63.1567(a)(2), you must meet each operating limit in the following table that applies to you]

For * * *	If you use this type of control device * * *	You must meet this operating limit during coke burn-off and catalytst rejuvenation . . .
1. Each new or existing catalytic reforming unit	a. Wet scrubber	The daily average pH of the water (or scrubbing liquid) exiting the scrubber must not fall below the limit established during the performance test; and the daily average liquid-to-gas ratio must not fall below the limit established during the performance test.
	b. Internal scrubbing system (i.e., no add-on control device).	The HCl concentration in the catalyst regenerator exhaust gas must not exceed the limit established during the performance test.

TABLE 24 TO SUBPART UUU OF PART 63.—CONTINUOUS MONITORING SYSTEMS FOR INORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS

[As stated in § 63.1567(b)(1), you must meet each requirement in the following table that applies to you]

If you use this type of control device for your vent * * *	You must install and operate this type of continuous monitoring system * * *
1. Wet scrubber	Continuous parameter monitoring system to measure and record the pH of the water (or scrubbing liquid) exiting the scrubber during coke burn-off and catalyst rejuvenation. If applicable, you can use the alternative in § 63.1573 instead of a continuous parameter monitoring system for pH of the water (or scrubbing liquid); and continuous parameter monitoring systems to measure and record the gas flow rate to the scrubber and the total water (or scrubbing liquid) flow rate to the scrubber during coke burn-off and catalyst rejuvenation.
2. Internal scrubbing system (i.e., no add-on control device).	Colormetric tube sampling system to measure the HCl concentration in the catalyst regenerator exhaust gas during coke burn-off and catalyst rejuvenation.

TABLE 25 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR INORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS

[As stated in § 63.1567(b)(2) and (3), you must meet each requirement in the following table that applies to you]

If you use this type of control device or system * * *	You must * * *	Using * * *	According to these requirements * * *
1. Wet scrubber	a. Measure the HCl concentration at the outlet of the control device (for the concentration standard) or at the inlet and outlet of the control d4evice (for the percent reduction standard).	i. Method 26A (40 CFR part 60, appendix A).	(1) Sampling rate must be at least 0.014 dscm/min (0.5 dscf/min). You must do the test during the coke burn-off and catalyst rejuvenation cycle, but don't make any test runs during the first hour or the last 6 hours of the cycle. (2) Record the total amount (rate) of scrubbing liquid or solution and the amount (rate) of make-up liquid to the scrubber during each test run.
	b. Establish operating limit for pH level.	.....	(1) Measure and record the pH of the water (or scrubbing liquid) exiting the scrubber every 15 minutes during the entire period of the performance test. Determine and record the hourly average pH level from the recorded values. (2) If you use the alternative method in § 63.1573, measure and record the pH of the water (or scrubbing liquid) exiting the scrubber during coke burn-off and catalyst rejuvenation using pH strips at least three times during each run. Determine and record the average pH level.
	c. Establish operating limit for liquid-to-gas ratio.	Data from the continuous parameter monitoring systems.	Measure and record the gas flow rate to the scrubber and the total water (or scrubbing liquid) flow rate to the scrubber every 15 minutes during the entire period of the performance test. Determine and record the hourly average gas flow rate and total water (or scrubbing liquid) flow rate. Determine and record the minimum liquid-to-gas ratio.
2. Internal scrubbing system (i.e., no add-on control device).	a. Measure the concentration of HCl in the catalyst regenerator exhaust gas.	Method 26 (40 CFR part 60, appendix A).	Sampling rate must be at least 0.014 dscm/min (0.5 dscf/min). You must do the test during the coke burn-off and catalyst rejuvenation cycle, but don't make any test runs during the first hour or the last 6 hours of the cycle.

TABLE 25 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR INORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS—Continued

[As stated in § 63.1567(b)(2) and (3), you must meet each requirement in the following table that applies to you]

If you use this type of control device or system * * *	You must * * *	Using * * *	According to these requirements * * *
	b. Establish operating limit for HCl concentration.	Measure and record the HCl concentration in the catalyst regenerator exhaust gas using the colorimetric tube sampling system at least three times during each test run. Determine and record the average HCl concentration.	

TABLE 26 TO SUBPART UUU OF PART 63.—INITIAL COMPLIANCE WITH INORGANIC HAP EMISSION LIMITS FOR CATALYTIC REFORMING UNITS

[As stated in § 63.1567(b)(4), you must meet each requirement in the following table that applies to you]

For* * *	For the following emission limit * * *	You have demonstrated initial compliance if * * *
1. Each existing semi-regenerative catalytic reforming unit.	Reduce uncontrolled emissions of HCl by 92 percent by weight using a control device or to a concentration of 30 ppmv, (dry basis), corrected to 3 percent oxygen.	Average emissions of HCl measured using Method 26 or 26A, as applicable over the period of the performance test, are reduced by 92 percent or to a concentration less than or equal to 30 ppmv (dry basis) corrected to 3 percent oxygen.
2. Each existing cyclic or continuous catalytic reforming unit and each new semi-regenerative, cyclic, or continuous catalytic reforming unit.	Reduce uncontrolled emissions of HCl by 97 percent by weight using a control device, or to a concentration of 10 ppmv (dry basis), corrected to 3 percent oxygen.	Average emissions of HCl measured using Method 26 or 26A, as applicable over the period of the performance test, are reduced by 97 percent or to a concentration less than or equal to 10 ppmv (dry basis) corrected to 3 percent oxygen.

TABLE 27 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH INORGANIC HAP EMISSION LIMITS FOR CATALYTIC REFORMING UNITS

[As stated in § 63.1567(c)(1), you must meet each requirement in the following table that applies to you]

For * * *	For this emission limit * * *	You must demonstrate continuous compliance during coke burn-off and catalyst rejuvenation by * * *
1. Each existing semi-regenerative catalytic reforming unit.	Reduce uncontrolled emissions of HCl by 92 percent by weight using a control device or to a concentration of 30 ppmv (dry basis), corrected to 3 percent oxygen.	Maintaining a 92 percent HCl emission reduction or an HCl concentration no more than 30 ppmv (dry basis), corrected to 3 percent oxygen.
2. Each existing cyclic or continuous catalytic reforming unit.	Reduce uncontrolled emissions of HCl by 97 percent by weight using a control device, or to a concentration of 10 ppmv (dry basis), corrected to 3 percent oxygen.	Maintaining a 97 percent HCl control efficiency or an HCl concentration no more than 10 ppmv (dry basis), corrected to 3 percent oxygen.
3. Each new semi-regenerative, cyclic, or continuous catalytic reforming unit.	Reduce uncontrolled emissions of HCl by 97 percent by weight using a control device, or to a concentration of 10 ppmv (dry basis), corrected to 3 percent oxygen.	Maintaining a 97 percent HCl control efficiency or an HCl concentration no more than 10 ppmv (dry basis), corrected to 3 percent oxygen.

TABLE 28 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS FOR INORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS

[As stated in § 63.1567(c)(1), you must meet each requirement in the following table that applies to you]

For * * *	For this operating limit * * *	If you use this type of control device * * *	You must demonstrate continuous compliance during coke burn-off and catalyst rejuvenation by * * *
1. Each new or existing catalytic reforming unit.	a. The daily average pH of the water (or scrubbing and liquid) exiting the scrubber must not fall below the level established during the performance test.	i. Wet scrubber	(1) Collecting the hourly and daily average pH monitoring data according to § 63.1572; and maintaining the daily average the pH above the operating limit established during the performance test. (2) If you use the alternative in § 63.1573, measuring and recording the pH of the water (or scrubbing liquid) exiting the scrubber every hour according to § 63.1572; determining and recording the daily average pH; and maintaining the daily average pH above the operating limit established during the performance test.
	b. The daily average liquid-to-gas ratio must not fall below the level established during the performance test.	Wet scrubber	Collecting the hourly average gas flow rate and total water (or scrubbing liquid) flow rate monitoring data; determining and recording the hourly average liquid-to-gas ratio; determining and recording the daily average liquid-to-gas ratio; and maintaining the daily average liquid-to-gas ratio above the limit established during the performance test.
	c. The HCl concentration in the catalyst regenerator exhaust gas must not exceed the applicable operating limit established during the performance test.	Internal scrubbing system (e.g., no add-on control device).	Measuring and recording the concentration of HCl every 4 hours using a colormetric tube sampling system; and maintaining the HCl concentration below the applicable operating limit.

TABLE 29 TO SUBPART UUU OF PART 63.—HAP EMISSION LIMITS FOR SULFUR RECOVERY UNITS

[As stated in § 63.1568(a)(1), you must meet each emission limitation in the following table that applies to you]

For * * *	You must meet this emission limit for each process vent * * *
1. Each new or existing Claus sulfur recovery unit part of a sulfur recovery plant of 20 long tons per day or more and subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	a. 250 ppmv (dry basis) of sulfur dioxide (SO_2) at zero percent excess air if you use an oxidation or reduction control system followed by incineration. b. 300 ppmv of reduced sulfur compounds calculated as ppmv SO_2 (dry basis) at zero percent excess air if you use a reduction control system without incineration.
2. Each new or existing sulfur recovery unit (Claus or other type, regardless of size) not subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2): Option 1 (Elect NSPS).	a. 250 ppmv (dry basis) of SO_2 at zero percent excess air if you use an oxidation or reduction control system followed by incineration. b. 300 ppmv of reduced sulfur compounds calculated as ppmv SO_2 (dry basis) at zero percent excess air if you use a reduction control system without incineration.
3. Each new or existing sulfur recovery unit (Claus or other type, regardless of size) not subject to the NSPS for sulfur oxides in paragraph (a)(2) of 40 CFR 60.104: Option 2 (TRS limit).	300 ppmv of total reduced sulfur (TRS) compounds, expressed as an equivalent SO_2 concentration (dry basis) at zero percent oxygen.

TABLE 30 TO SUBPART UUU OF PART 63.—OPERATING LIMITS FOR HAP EMISSIONS FROM SULFUR RECOVERY UNITS

[As stated in § 63.1568(a)(2), you must meet each operating limit in the following table that applies to you]

For * * *	If use this type of control device	You must meet this operating limit* * *
1. Each new or existing Claus sulfur recovery unit part of a sulfur recovery plant of 20 long tons per day or more and subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	Not applicable	Not applicable.
2. Each new or existing sulfur recovery unit (Claus or other type, regardless of size) not subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2): Option 1 (Elect NSPS).	Not applicable	Not applicable.
3. Each new or existing sulfur recovery unit (Claus or other type, regardless of size) not subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2): Option 2 (TRS limit).	Thermal incinerator	Maintain the daily average combustion zone temperature above the limit established during the performance test; and maintain the daily average oxygen concentration in the vent stream (percent, dry basis) above the limit established during the performance test.

TABLE 31 TO SUBPART UUU OF PART 63.—CONTINUOUS MONITORING SYSTEMS FOR HAP EMISSIONS FROM SULFUR RECOVERY UNITS

[As stated in § 63.1568(b)(1), you must meet each requirement in the following table that applies to you]

For * * *	For this limit * * *	You must install and operate this continuous monitoring system * * *
1. Each new or existing Claus sulfur recovery unit part to a sulfur recovery plant of 20 long tons per day and subject to the NSPS for sulfur oxides in 40 CFR 60.104 (1) (2).	a. 250 ppmv (dry basis) of SO_2 at zero percent excess air if you use an oxidation or reduction control system followed by incineration.	Continuous emission monitoring system to measure and record the hourly average concentration of SO_2 (dry basis) at zero percent excess air for each exhaust stack. This system must include an oxygen monitor for correcting the data for excess air.
	b. 300 ppmv of reduced sulfur compounds calculated as ppmv SO_2 (dry basis) at zero percent excess air if you use a reduction control system without incineration.	Continuous emission monitoring system to measure and record the hourly average concentration of reduced sulfur and oxygen (O_2) emissions. Calculate the reduced sulfur emissions as SO_2 (dry basis) at zero percent excess air. *Exception:* You can use an instrument having an air or SO_2 dilution and oxidation system to convert the reduced sulfur to SO_2 for continuously monitoring and recording the concentration (dry basis) at zero percent excess air of the resultant SO_2 instead of the reduced sulfur monitor. The monitor must include an oxygen monitor for correcting the data for excess oxygen.
2. Option 1: Elect NSPS. Each new or existing sulfur recovery unit (Claus or other type, regardless of size) not subject to the NSPS for sulfur oxides in paragraph (a) (2) of 40 CFR 60.104.	a. 250 ppmv (dry basis) of SO_2 at zero percent excess air if you use an oxidation or reduction control system followed by incineration.	Continuous emission monitoring system to measure and record the hourly average concentration of SO_2 (dry basis), at zero percent excess air for each exhaust stack. This system must include an oxygen monitor for correcting the data for excess air.
	b. 300 ppmv of reduced sulfur compounds calculated as ppmv SO_2 (dry basis) at zero percent excess air if you use a reduction control system without incineration.	Continuous emission monitoring system to measure and record the hourly average concentration of reduced sulfur and O_2 emissions for each exhaust stack. Calculate the reduced sulfur emissions as SO_2 (dry basis), at zero percent excess air. *Exception:* You can use an instrument having an air or O_2 dilution and oxidation system to convert the reduced sulfur to SO_2 for continuously monitoring and recording the concentration (dry basis) at zero percent excess air of the resultant SO_2 instead of the reduced sulfur monitor. The monitor must include an oxygen monitor for correcting the data for excess oxygen.

TABLE 31 TO SUBPART UUU OF PART 63.—CONTINUOUS MONITORING SYSTEMS FOR HAP EMISSIONS FROM SULFUR RECOVERY UNITS—Continued

[As stated in § 63.1568(b)(1), you must meet each requirement in the following table that applies to you]

For * * *	For this limit * * *	You must install and operate this continuous monitoring system * * *
3. Option 2: TRS limit Each new or existing sulfur recovery unit (Claus or Other type, regardless or size) not subject to the NSPS for sulfur oxides in 40 CFR 60.104 (a) (2).	300 ppmv of total reduced sulfur (TRS) compounds, expressed as an equivalent SO_2 concentration (dry basis) at zero percent oxygen.	Continuous emission monitoring system to measure and record the hourly average concentration of TRS for each exhaust stack. This monitor must include an oxygen monitor for correcting the data for excess oxygen; or continuous parameter monitoring systems to measure and record the combustion zone temperature of each thermal incinerator and the oxygen content (percent, dry basis) in the vent stream of the incinerator.

TABLE 32 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR HAP EMISSIONS FROM SULFUR RECOVERY UNITS NOT SUBJECT TO THE NEW SOURCE PERFORMANCE STANDARDS FOR SULFUR OXIDES

[As stated in § 63.1568(b)(2) and (3), you must meet each requirement in the following table that applies to you]

For * * *	You must * * *	Using * * *	According to these requirements * * *
1. Each new and existing sulfur recovery unit: Option 1 (Elect NSPS).	Measure SO_2 concentration (for an oxidation or reduction system followed by incineration) or the concentration of reduced sulfur (or SO_2 if you use an instrument to convert the reduced sulfur to SO_2) for a reduction control system without incineration.	Data from continuous emission monitoring system.	Collect SO_2 monitoring data every 15 minutes for 24 consecutive operating hours. Reduce the data to 1-hour averages computed from four or more data points equally spaced over each 1-hour period.
2. Each new and existing sulfur recovery unit: Option 2 (TRS limit).	a. Select sampling port's location and the number of traverse ports.	Method 1 or 1A appendix A to part 60 of this chapter.	Sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere.
	b. Determine velocity and volumetric flow rate.	Method 2, 2A, 2C, 2D, 2F, or 2G in appendix A to part 60 of this chapter, as applicable.	
	c. Conduct gas molecular weight analysis; obtain the oxygen concentration needed to correct the emission rate for excess air.	Method 3, 3A, or 3B in appendix A to part 60 of this chapter, as applicable.	Take the samples simultaneously with reduced sulfur or moisture samples.
	d. Measure moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.	Make your sampling time for each Method 4 sample equal to that for 4 Method 15 samples.
	e. Measure the concentration of TRS.	Method 15 or 15A in appendix A to part 60 of this chapter, as applicable.	If the cross-sectional area of the duct is less than 5 square meters (m^2) or 54 square feet, you must use the centroid of the cross section as the sampling point. If the cross-sectional area is 5 m^2 or more and the centroid is more than 1 meter (m) from the wall, your sampling point may be at a point no closer to the walls than 1 m or 39 inches. Your sampling rate must be at least 3 liters per minute or 0.10 cubic feet per minute to ensure minimum residence time for the sample inside the sample lines.
	f. Calculate the SO_2 equivalent for each run after correcting for moisture and oxygen.	The arithmetic average of the SO_2 equivalent for each sample during the run.	
	g. Correct the reduced sulfur samples to zero percent excess air.sa	Equation 1 of § 63.1568.	

TABLE 32 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR HAP EMISSIONS FROM SULFUR RECOVERY UNITS NOT SUBJECT TO THE NEW SOURCE PERFORMANCE STANDARDS FOR SULFUR OXIDES—Continued

[As stated in § 63.1568(b)(2) and (3), you must meet each requirement in the following table that applies to you]

For * * *	You must * * *	Using * * *	According to these requirements * * *
	h. Establish each operating limit in Table 30 of this subpart that applies to you.	Data from the continuous parameter monitoring system.	
	i. Measure thermal incinerator: combustion zone temperature.	Data from the continuous parameter monitoring system.	Collect temperature monitoring data every 15 minutes during the entire period of the performance test; and determine and record the minimum hourly average temperature from all the readings.
	j. Measure thermal incinerator: oxygen concentration (percent, dry basis) in the vent stream.	Data from the continuous parameter monitoring system.	Collect oxygen concentration (percent, dry basis) data every 15 minutes during the entire period of the performance test; and determine and record the minimum hourly average percent excess oxygen concentration.
	k. If you use a continuous emission monitoring system, measure TRS concentration.	Data from continuous emission monitoring system.	Collect TRS data every 15 minutes for 24 consecutive operating hours. Reduce the data to 1-hour averages computed from four or more data points equally spaced over each 1-hour period.

TABLE 33 TO SUBPART UUU OF PART 63.—INITIAL COMPLIANCE WITH HAP EMISSION LIMITS FOR SULFUR RECOVERY UNITS

[As stated in § 63.1568(b)(5), you must meet each requirement in the following table that applies to you]

For * * *	For the following emission limit * * *	You have demonstrated initial compliance if * * *
1. Each new or existing Clause sulfur recovery unit part of a sulfur recovery plant of 20 long tons per day and subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	a. 250 ppmv (dry basis) SO_2 at zero percent excess air if you use an oxidation or reduction control system followed by incineration.	You have already conducted a performance test to demonstrate initial compliance with the NSPS and the hourly average SO_2 emissions measured by the continuous emission monitoring system are less than or equal to 250 ppmv (dry basis) at zero percent excess air. As part of the Notification of Compliance Status, you must certify that your vent meets the SO_2 limit. You are not required to do another performance test to demonstrate initial compliance. You have already conducted a performance evaluation to demonstrate initial compliance with the applicable performance specification. As part of your Notification of Compliance Status, you must certify that your continuous emission monitoring system meets the applicable requirements in § 63.1572. You are not required to do another performance evaluation to demonstrate initial compliance.
	b. 300 ppmv of reduced sulfur compounds calculated as ppmv SO_2 (dry basis) at zero percent excess air if you use a reduction control system without incineration.	You have already conducted a performance test to demonstrate initial compliance with the NSPS and the hourly average SO_2 emissions measured by your continuous emission monitoring system are less than or equal to 250 ppmv (dry basis) at zero percent excess air. As part of the Notification of Compliance Status, you must certify that your vent meets the SO_2 limit. You are not required to do another performance test do demonstrate initial compliance.

TABLE 33 TO SUBPART UUU OF PART 63.—INITIAL COMPLIANCE WITH HAP EMISSION LIMITS FOR SULFUR RECOVERY UNITS—Continued

[As stated in § 63.1568(b)(5), you must meet each requirement in the following table that applies to you]

For * * *	For the following emission limit * * *	You have demonstrated initial compliance if * * *
		You have already conducted a performance evaluation to demonstrate initial compliance with the applicable performance specification. As part of your Notification of Compliance Status, you must certify that your continuous emission monitoring system meets the applicable requirements in § 63.1572. You are not required to do another performance evaluation to demonstrate initial compliance.
2. Option 1: Elect NSPS. Each new or existing sulfur recovery unit (Claus or other type, regardless of size) not subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	a. 250 ppmv (dry basis) of SO_2 at zero percent excess air if you use an oxidation control system followed by incineration.	The hourly average SO_2 emissions measured by the continuous emission monitoring system over the 24-hour period of the initial performance test are not more than 250 ppvm (dry basis) at zero percent excess air; and your performance evaluation shows the monitoring system meets the applicable requirements in § 63.1572.
	b. 300 ppmv of reduced sulfur compounds calculated as ppmv SO_2 (dry basis) at zero percent excess air if you use a reduction control system without incineration.	The hourly average reduced sulfur emissions measured by the continuous emission monitoring system over the 24-hour period of the performance test no more than 300 ppmv, calculated as ppmv SO_2 (dry basis) at zero percent excess air; and your performance evaluation shows the continuous emission monitoring system meets the applicable requirements in § 63.1572.
3. Option 2: TRS limit. Each new or existing sulfur recovery unit (Claus or other type, regardless of size) not subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	300 ppmv of TRS compounds expressed as an equivalent SO_2 concentration (dry basis) at zero percent oxygen.	If you do not use a continuous emission monitoring system, the average TRS emissions measured using Method 15 over the period of the initial performance test are less than or equal to 300 ppmv expressed as equivalent SO_2 concentration (dry basis) at zero percent oxygen. If you use a continuous emission monitoring system the hourly average TRS emissions measured by the continuous emission monitoring system over the 24-hour period of the performance test are no more than 300 ppmv expressed as an equivalent SO_2 concentration (dry basis) at zero percent oxygen; and your performance evaluation shows the continuous emission monitoring system meets the applicable requirements in § 63.1572.

TABLE 34 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH HAP EMISSION LIMITS FOR SULFUR RECOVERY UNITS

[As stated in § 63.1568(c)(1), you must meet each requirement in the following table that applies to you.]

For * * *	For this emission limit * * *	You must demonstrate continuous compliance by * * *
1. Each new or existing Claus sulfur recovery unit part of a sulfur recovery plant of 20 long tons per or more and subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	a. 250 ppmv (dry basis) SO_2 at zero percent excess air if you use an oxidation or reduction control system followed by incineration.	Collecting the hourly average SO_2 monitoring data (dry basis, percent excess air) according to § 63.1572; maintaining the hourly average SO_2 concentration at or below the applicable limit; determining and recording each 12-hour average SO_2 day concentration; and reporting any 12-hour average SO_2 concentration greater than the applicable emission limitation in the compliance report required in § 63.1575.

TABLE 34 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH HAP EMISSION LIMITS FOR SULFUR RECOVERY UNITS—Continued

[As stated in § 63.1568(c)(1), you must meet each requirement in the following table that applies to you.]

For * * *	For this emission limit * * *	You must demonstrate continuous compliance by * * *
	b. 300 ppmv of reduced sulfur compounds calculated as ppmv (dry basis) SO_2 at zero percent excess air if you use a reduction control system without incineration.	Collecting the hourly average reduced sulfur and O_2 data according to § 63.1572; and maintaining the hourly average concentration of reduced sulfur at or below the applicable limit; and determining and recording each 12-hour average concentration of reduced sulfur; and reporting any 12-hour average concentration of reduced sulfur greater than the applicable emission limitation in the compliance report required in § 63.1575.
2. Option 1: Elect NSPS Each new or existing sulfur recovery unit (Claus or other type, regardless of size) not subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	a. 250 ppmv (dry basis) of SO_2 at zero percent excess air (for oxidation or reduction system followed by incineration).	Collecting the hourly average SO_2 monitoring data (dry basis, percent excess air) according to § 63.1572; maintaining the hourly average SO_2 concentration at or below the applicable limit; determining and recording each 12-hour average SO_2 concentration; and reporting any 12-hour average SO_2 concentration greater than the applicable emission limitation in the compliance report required in § 63.1575.
	b. 300 ppmv of reduced sulfur compounds calculated as ppmv SO_2 (dry basis) at zero percent excess air (for reduction control system without incineration).	Collecting the hourly average reduced sulfur (and air or O_2 dilution and oxidation data) according to § 63.1572; maintaining the hourly average SO_2 concentration at or below the applicable limit; reducing the monitoring data to 12-hour averages; and reporting any 12-hour average SO_2 concentration greater than the applicable limit in the compliance report required by § 63.1575.
3. Option 2: TRS limit Each new or existing sulfur recovery unit (Claus or other type, regardless of size) not subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	300 ppmv of TRS compounds, expressed as an SO_2 concentration (dry basis) at zero percent oxygen or reduced sulfur compounds calculated as ppmv SO_2 (dry basis) at zero percent excess air.	Collecting the hourly average TRS monitoring data according to § 63.1572, if you use a continuous emission monitoring system; maintaining the hourly average concentration of TRS at or below the applicable limit; reducing the TRS monitoring data to 12-hour averages; reporting any 12-hour average TRS greater than the applicable limit in the compliance report required by § 63.1575; and maintaining the hourly average concentration of TRS below the applicable limit if you use continuous parameter monitoring systems.

TABLE 35 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS FOR HAP EMISSIONS FROM SULFUR RECOVERY UNITS

[As stated in § 63.1568(c)(1), you must meet each requirement in the following table that applies to you]

For * * *	For this operating limit * * *	You must demonstrate continuous compliance by * * *
1. Each new or existing Claus sulfur recovery unit part of a sulfur recovery plant of 20 long tons per day or more and subject to the NSPS for sulfur oxides in paragraph 40 CFR 60.104(a)(2).	Not applicable	Meeting the requirements of Table 34 of this subpart.
2. Option 1: Elect NSPS Each new or existing sulfur recovery unit (Claus or other type, regardless of size) not subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	Not applicable	Meeting the requirements of Table 34 of this subpart.
3. Option 2: TRS limit Each new or existing sulfur recovery unit (Claus or other type, regardless of size) not subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2)	a. Maintain the daily average combustion zone temperature above the level established during the performance test.	Collecting the hourly and daily average temperature monitoring data according to § 63.1572; and maintaining the daily average combustion zone temperature at or above the limit established during the performance test.

TABLE 35 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS FOR HAP EMISSIONS FROM SULFUR RECOVERY UNITS—Continued

[As stated in § 63.1568(c)(1), you must meet each requirement in the following table that applies to you]

For * * *	For this operating limit * * *	You must demonstrate continuous compliance by * * *
	b. The daily average oxygen concentration in the vent stream (percent, dry basis) must not fall below the level established during the performance test.	Collecting the hourly and daily average O_2 monitoring data according to § 63.1572; and maintaining the average O_2 concentration above the level established during the performance test.

TABLE 36 TO SUBPART UUU OF PART 63.—WORK PRACTICE STANDARDS FOR HAP EMISSIONS FROM BYPASS LINES

[As stated in § 63.1569(a)(1), you must meet each work practice standard in the following table that applies to you]

Option	You must meet one of these equipment standards * * *
1. Option 1	Install and operate a device (including a flow indicator, level recorder, or electronic valve position monitor) to continuously detect, at least every hour, whether flow is present in the bypass line. Install the device at or as near as practical to the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere.
2. Option 2	Install a car-seal or lock-and-key device placed on the mechanism by which the bypass device flow position is controlled (e.g., valve handle, damper level) when the bypass device is in the closed position such that the bypass line valve cannot be opened without breaking the seal or removing the device.
3. Option 3	Seal the bypass line by installing a solid blind between piping flanges.
4. Option 4	Vent the bypass line to a control device that meets the appropriate requirements in this subpart.

TABLE 37 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR BYPASS LINES

[As stated in § 63.1569(b)(1), you must meet each requirement in the following table that applies to you]

For this standard . . .	You must . . .
1. Option 1: Install and operate a flow indicator, level recorder, or electronic valve position monitor.	Record during the performance test for each type of control device whether the flow indicator, level recorder, or electronic valve position monitor was operating and whether flow was detected at any time during each hour of level the three runs comprising the performance test.

TABLE 38 TO SUBPART UUU OF PART 63.—INITIAL COMPLIANCE WITH WORK PRACTICE STANDARDS FOR HAP EMISSIONS FROM BYPASS LINES

[As stated in § 63.1569(b)(2), you must meet each requirement in the following table that applies to you]

For * * *	For this work practice standard * * *	You have demonstrated initial compliance if * * *
1. Each new or existing bypass line associated with a catalytic cracking unit, catalylic reforming unit, or sulfur recovery unit.	a. Option 1: Install and operate a device (including a flow indicator, level recorder, or electronic valve position monitor) to continuously detect, at least every hour, whether flow is present in the bypass line. Install the device at or as near as practical to the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere.	The installed equipment operates properly during each run of the performance test and no flow is present in the line during the test.
	b. Option 2: Install a car-seal or lock-and-key device placed on the mechanism by which the bypass device flow position is controlled (e.g., valve handle, damper level) when the bypass device is in the closed position such that the bypass line valve cannot be opened without breaking the seal or removing the device.	As part of the notification of compliance status, you certify that you installed the equipment, the equipment was operational by your compliance date, and you identify what equipment was installed.
	c. Option 3: Seal the bypass line by installing a solid blind between piping flanges.	See item 1.b. of this table.
	d. Option 4: Vent the bypass line to a control device that meets the appropriate requirements in this subpart.	See item 1.b. of this table.

TABLE 39 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH WORK PRACTICE STANDARDS FOR HAP EMISSIONS FROM BYPASS LINES

[As stated in § 63.1569(c)(1), you must meet each requirement in the following table that applies to you]

If you elect this standard * * *	You must demonstrate continuous compliance by * * *
1. Option 1: Flow indicator, level recorder, or electronic valve position monitor.	Continuously monitoring and recording whether flow is present in the bypass line; visually inspecting the device at least once every hour if the device is not equipped with a recording system that provides a continuous record; and recording whether the device is operating properly and whether flow is present in the bypass line.
2. Option 2: Car-seal or lock-and-key device	Visually inspecting the seal or closure mechanism at least once every month; and recording whether the bypass line valve is maintained in the closed position and whether flow is present in the line.
3. Option 3: Solid blind flange	Visually inspecting the blind at least once a month; and recording whether the blind is maintained in the correct position such that the vent stream cannot be diverted through the bypass line.
4. Option 4: Vent to control device	Monitoring the control device according to appropriate subpart requirements.
5. Option 1, 2, 3, or 4	Recording and reporting the time and duration of any bypass.

TABLE 40 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR INSTALLATION, OPERATION, AND MAINTENANCE OF CONTINUOUS OPACITY MONITORING SYSTEMS AND CONTINUOUS EMISSION MONITORING SYSTEMS

[As stated in § 63.1572(a)(1) and (b)(1), you must meet each requirement in the following table that applies to you]

This type of continuous opacity or emission monitoring system * * *	Must meet these requirements * * *
1. Continuous opacity monitoring system	Performance specification 1 (40 CFR part 60, appendix B).
2. CO continuous emission monitoring system	Performance specification 4 (40 CFR part 60, appendix B); span value of 1,000 ppm; and procedure 1 (40 CFR part 60, appendix F) except relative accuracy test audits are required annually instead of quarterly.
3. CO continuous emission monitoring system used to demonstrate emissions average under 50 ppm (dry basis).	Performance specification 4 (40 CFR part 60, appendix B); and span value of 100 ppm.
4. SO_2 continuous emission monitoring for sulfur recovery unit with oxidation control system or reduction control system; this monitor must include an O_2 monitor for correcting the data for excess air.	Performance specification 2 (40 CFR part 60, appendix B); span values of 500 ppm SO_2 and 10 percent O_2; use Methods 6 or 6C and 3A or 3B (40 CFR part 60, appendix A) for certifying O_2 monitor; and procedure 1 (40 CFR part 60, appendix F) except relative accuracy test audits are required annually instead of quarterly.
5. Reduced sulfur and O_2 continuous emission monitoring system for sulfur recovery unit with reduction control system not followed by incineration; this monitor must include an O_2 monitor for correcting the data for excess air unless exempted.	Performance specification 5 (40 CFR part 60, appendix B), except calibration drift specification is 2.5 percent of the span value instead of 5 percent; 450 ppm reduced sulfur and 10 percent O_2; use Methods 15 or 15A and 3A or 3B (40 CFR part 60, appendix A) for certifying O_2 monitor; if Method 3A or 3B yields O_2 concentrations below 0.25 percent during the performance evaluation, the O_2 concentration can be assumed to be zero and the O_2 monitor is not required; and procedure 1 (40 CFR part 60, appendix F), except relative accuracy test audits, are required annually instead of quarterly.
6. Instrument with an air or O2 dilution and oxidation system to convert reduced sulfur to SO_2 for continuously monitoring the concentration of SO_2 instead of reduced sulfur monitor and O_2 monitor.	Performance specification 5 (40 CFR part 60, appendix B); span value of 375 ppm SO_2 and 10 percent O_2; use Methods 15 or 15A and 3A or 3B for certifying O_2 monitor; and procedure 1 (40 CFR part 60, appendix F), except relative accuracy test audits, are required annually instead of quarterly.
7. TRS continuous emission monitoring system for sulfur recovery unit; this monitor must include an O_2 monitor for correcting the data for excess air.	Performance specification 5 (40 CFR part 60, appendix B).
8. O_2 monitor for oxygen concentration	If necessary due to interferences, locate the oxygen sensor prior to the introduction of any outside gas stream; performance specification 3 (40 CFR part 60, appendix B; span value for O_2 sensor is 10 percent; and procedure 1 (40 CFR part 60, appendix F), except relative accuracy test audits, are required annually instead of quarterly.

TABLE 41 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR INSTALLATION, OPERATION, AND MAINTENANCE OF CONTINUOUS PARAMETER MONITORING SYSTEMS

[As stated in § 63.1572(c)(1), you must meet each requirement in the following table that applies to you]

If you use a continuous parameter monitoring system to measure and record * * *	You must * * *
1. Voltage and secondary current or total power input.	At least monthly, inspect all components of the continuous parameter monitoring system for integrity and all electrical connections for continuity; and record the results of each inspection.

TABLE 41 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR INSTALLATION, OPERATION, AND MAINTENANCE OF CONTINUOUS PARAMETER MONITORING SYSTEMS—Continued

[As stated in § 63.1572(c)(1), you must meet each requirement in the following table that applies to you]

If you use a continuous parameter monitoring system to measure and record * * *	You must * * *
2. Pressure drop [1]	Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure; minimize or eliminate pulsating pressure, vibration, and internal and external corrosion; use a gauge with an accuracy ± 2 percent over the operating range; check pressure tap for plugs at least once a week; using a manometer, check gauge calibration quarterly and transducer calibration monthly; for a semi-regenerative catalytic reforming unit, you can check the calibration quarterly and monthly or prior to regeneration, whichever is longer; record the results of each calibration; conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor; at least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage; and record the results of each inspection.
3. Air flow rate, gas flow rate, or total water (or scrubbing liquid) flow rate.	Locate the flow sensor(s) and other necessary equipment such as straightening vanes in a position that provides representative flow; use a flow rate sensor with an accuracy within ±5 percent; reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances; conduct a flow sensor calibration check at least semiannually; for a semi-regenerative catalytic reforming unit, you can check the calibration at least semiannually or prior to regeneration, whichever is longer; record the results of each calibration; if you elect to comply with Option 3 (Ni lb/hr) or Option 4 (Ni lb/1,000 lbs of coke burn-off) for the HAP metal emission limitations in § 63.1564, install the continuous parameter monitoring system for gas flow rate as close as practical to the continuous opacity monitoring system; and if you don't use a continuous opacity monitoring system, install the continuous parameter monitoring system for gas flow rate as close as practical to the control device.
4. Combustion zone temperature	Install the temperature sensor in the combustion zone or in the ductwork immediately downstream of the combustion zone before any substantial heat exchange occurs; locate the temperature sensor in a position that provides a representative temperature; use a temperature sensor with an accuracy of ±1 percent of the temperature being measured, expressed in degrees Celsius (C) or ±0.5 degrees C, whichever is greater; shield the temperature sensor system from electromagnetic interference and chemical contaminants; if you use a chart recorder, it must have a sensitivity in the minor division of at least 20 degrees Fahrenheit; perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual; following the electronic calibration, conduct a temperature sensor validation check, in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 16.7 degrees C of the process temperature sensor's reading; record the results of each calibration and validation check; conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range, or install a new temperature sensor; and at least monthly, inspect all components for integrity and all electrical connections for continuity, oxidation, and galvanic corrosion.
5. pH	Locate the pH sensor in a position that provides a representative measurement of pH; ensure the sample is properly mixed and representative of the fluid to be measured; check the pH meter's calibration on at least two points every 8 hours of process operation; at least monthly, inspect all components for integrity and all electrical components for continuity; record the results of each inspection; and if you use pH strips to measure the pH of the water exiting a wet scrubber as an alternative to a continuous parameter monitoring system, you must use pH strips with an accuracy of ±10 percent.
6. HCl concentration	Use a colormetric tube sampling system with a printed numerical scale in ppmv, a standard measurement range of 1 to 10 ppmv (or 1 to 30 ppmv if applicable), and a standard deviation for measured values of no more than ±15 percent. System must include a gas detection pump and hot air probe if needed for the measurement range.

[1] Not applicable to non-venturi wet scrubbers of the jet-ejector design.

TABLE 42 TO SUBPART UUU OF PART 63.—ADDITIONAL INFORMATION FOR INITIAL NOTIFICATION OF COMPLIANCE STATUS

[As stated in § 63.1574(d), you must meet each requirement in the following table that applies to you]

For * * *	You must provide this additional information * * *
1. Identification of affected sources and emission points.	Nature, size, design, method of operation, operating design capacity of each affected source; identify each emission point for each HAP; identify any affected source or vent associated with an affected source not subject to the requirements of subpart UUU.

TABLE 42 TO SUBPART UUU OF PART 63.—ADDITIONAL INFORMATION FOR INITIAL NOTIFICATION OF COMPLIANCE STATUS—Continued

[As stated in § 63.1574(d), you must meet each requirement in the following table that applies to you]

For * * *	You must provide this additional information * * *
2. Initial compliance	Identification of each emission limitation you will meet for each affected source, including any option you select (i.e., NSPS, PM or Ni, flare, percent reduction, concentration, options for bypass lines); if applicable, certification that you have already conducted a performance test to demonstrate initial compliance with the NSPS for an affected source; certification that the vents meet the applicable emission limit and the continuous opacity or that the emission monitoring system meets the applicable performance specification; if applicable, certification that you have installed and verified the operational status of equipment by your compliance date for each bypass line that meets the requirements of Option 2, 3, or 4 in § 63.1569 and what equipment you installed; identification of the operating limit for each affected source, including supporting documentation; if your affected source is subject to the NSPS, certification of compliance with NSPS emission limitations and performance specifications; a brief description of performance test conditions (capacity, feed quality, catalyst, etc.); an engineering assessment (if applicable); and if applicable, the flare design (e.g., steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the Method 22 test.
3. Continuous compliance	Each monitoring option you elect; and identification of any unit or vent for which monitoring is not required; and the definition of ''operating day.'' (This definition, subject to approval by the applicable permitting authority, must specify the times at which a 24-hr operating day begins and ends.)

TABLE 43 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR REPORTS

[As stated in § 63.1575(a), you must meet each requirement in the following table that applies to you]

You must submit a(n) * * *	The report must contain * * *	You must submit the report * * *
1. Compliance report	If there are not deviations from any emission limitation or work practice standard that applies to you, a statement that there were no deviations from the standards during the reporting period and that no continuous opacity monitoring system or continuous emission monitoring system was inoperative, inactive, out-of-control, repaired, or adjusted; and if you have a deviation from any emission limitation or work practice standard during the reporting period, the report must contain the information in § 63.1575(d) or (e)	Semiannually according to the requirements in § 63.1575(b).

TABLE 44 TO SUBPART UUU OF PART 63.—APPLICABILITY OF NESHAP GENERAL PROVISIONS TO SUBPART UUU

[As stated in § 63.1577, you must meet each requirement in the following table that applies to you]

Citation	Subject	Applies to subpart UUU	Explanation
§ 63.1	Applicability	Yes.	Except that subpart UUU specifies calendar or operating day.
§ 63.2	Definitions	Yes.	
§ 63.3	Units and Abbreviations	Yes.	
§ 63.4	Prohibited Activities	Yes.	
§ 63.5(a)–(c)	Construction and Reconstruction	Yes	In § 63.5(b)(4), replace the reference to § 63.9 with § 63.9(b)(4) and (5).
§ 63.5(d)(1)(i)	Application for Approval of Construction or Reconstruction—General Application Requirements.	Yes	Except, subpart UUU specifies the application is submitted as soon as practicable before startup but no later than 90 days (rather than 60) after the promulgation date where construction or reconstruction had commenced and initial startup had not occurred before promulgation.
§ 63.5(d)(1)(ii)		Yes	Except that emission estimates specified in § 63.5(d)(1)(ii)(H) are not required.
§ 63.5(d)(1)(iii)		No	Subpart UUU specifies submission of notification of compliance status.
§ 63.5(d)(2)		No.	
§ 63.5(d)(3)		Yes	Except that § 63.5(d)(3)(ii) does not apply.
§ 63.5(d)(4)		Yes.	
§ 63.5(e)	Approval of Construction or Reconstruction.		

TABLE 44 TO SUBPART UUU OF PART 63.—APPLICABILITY OF NESHAP GENERAL PROVISIONS TO SUBPART UUU—Continued

[As stated in § 63.1577, you must meet each requirement in the following table that applies to you]

Citation	Subject	Applies to subpart UUU	Explanation
§ 63.5(f)(1)	Approval of Construction or Reconstruction Based on State Review.	Yes.	
§ 63.5(f)(2)		Yes	Except that 60 days is changed to 90 days and cross-reference to § 63.9(b)(2) does not apply.
§ 63.6(a)	Compliance with Standards and Maintenance—Applicability.	Yes.	
§ 63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed Sources.	Yes.	
§ 63.6(b)(5)		Yes	Except that subpart UUU specifies different compliance dates for sources.
§ 63.6(b)(6)	[Reserved]	Not applicable.	
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major.	Yes.	
§ 63.6(c)(1)–(2)	Compliance Dates for Existing Sources.	Yes	Except that for subpart UUU specifies different compliance dates for sources subject to Tier II gasoline sulfur control requirements.
§ 63.6(c)(3)–(4)	[Reserved]	Not applicable.	
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major.	Yes.	
§ 63.6(d)	[Reserved]	Not applicable.	
§ 63.6(e)(1)–(2)	Operation and Maintenance Requirements.	Yes.	
§ 63.6(e)(3)(i)–(iii)	Startup, Shutdown, and Malfunction Plan.	Yes.	
§ 63.6(e)(3)(iv)		Yes	Except that reports of actions not consistent with plan are not required within 2 and 7 days of action but rather must be included in next periodic report.
§ 63.6(e)(3)(v)–(viii)		Yes	The owner or operator is only required to keep the latest version of the plan.
§ 63.6(f)(1)–(2)(iii)(C)	Compliance with Emission Standards	Yes.	
§ 63.6(f)(2)–(iii)(D)		No.	
§ 63.6(f)(2)(iv)–(v)		Yes.	
§ 63.6(f)(3)		Yes.	
§ 63.6(g)	Alternative Standard	Yes.	
§ 63.6(h)	Opacity/VE Standards	Yes.	
§ 63.6(h)(2)(i)	Determining Compliance with Opacity/VE Standards.	No	Subpart UUU specifies methods.
§ 63.6(h)(2)(ii)	[Reserved]	Not applicable.	
§ 63.6(h)(2)(iii)		Yes.	
§ 63.6(h)(3)	[Reserved]	Not applicable.	
§ 63.6(h)(4)	Notification of Opacity/VE Observation Date.	Yes	Applies to Method 22 tests.
§ 63.6(h)(5)	Conducting Opacity/VE Observations	No.	
§ 63.6(h)(6)	Records of Conditions During Opacity/VE Observations.	Yes	Applies to Method 22 observations.
§ 63.6(h)(7)(i)	Report COM Monitoring Data from Performance Test.	Yes.	
§ 63.6(h)(7)(ii)	Using COM Instead of Method 9	No.	
§ 63.6(h)(7)(iii)	Averaging Time for COM during Performance Test.	Yes.	
§ 63.6(h)(7)(iv)	COM Requirements	Yes.	
§ 63.6(h)(8)	Determining Compliance with Opacity/VE Standards.	Yes.	

TABLE 44 TO SUBPART UUU OF PART 63.—APPLICABILITY OF NESHAP GENERAL PROVISIONS TO SUBPART UUU—Continued

[As stated in § 63.1577, you must meet each requirement in the following table that applies to you]

Citation	Subject	Applies to subpart UUU	Explanation
§ 63.6(h)(9)	Adjusted Opacity Standard	Yes.	
§ 63.6(i)(1)–(14)	Extension of Compliance	Yes	Not applicable to an affected source with Tier II compliance date. May be applicable to an affected source exempt from Tier II rule.
§ 63.6(i)(15)	[Reserved]	Not applicable.	
§ 63.6(i)(16)		Yes.	

[FR Doc. 02–7222 Filed 4–10–02; 8:45 am]

BILLING CODE 6560–50–P

Federal Register

Wednesday,
February 9, 2005

Part II

Environmental Protection Agency

40 CFR Part 63

National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units; Final Rule and Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2002–0033; AD–FRL–7969–9]

RIN 2060–AK51

National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule; amendments.

SUMMARY: On April 11, 2002, pursuant to section 112 of the Clean Air Act (CAA), the EPA issued national emission standards to control hazardous air pollutants emitted from catalytic cracking units, catalytic reforming units, and sulfur recovery units at petroleum refineries. This action promulgates amendments to several sections of the existing standards. The amendments will change the affected source designations and add new compliance options for catalytic reforming units that use different types of emission control systems, new monitoring alternatives for catalytic cracking units and catalytic reforming units, and a new procedure for determining the metal or total chloride concentration on catalyst particles. The amendments will also defer technical requirements for most continuous parameter monitoring systems, clarify testing and monitoring requirements, and make editorial corrections.

DATES: The final amendments will be effective on April 11, 2005, unless we receive significant adverse comments by March 11, 2005, or by March 28, 2005 if a public hearing is requested. If such comments are received, we will publish a timely withdrawal in the **Federal Register** indicating which amendments, paragraph, or section will become effective and which amendments, paragraph, or section are being withdrawn due to adverse comment. Any distinct amendment, paragraph, or section of the direct final amendments for which we do not receive adverse comment will become effective on April 11, 2005.

ADDRESSES: *Comments.* Submit your comments, identified by Docket ID No. OAR–2002–0033, by one of the following methods:

- Federal eRulemaking Portal: *http://www.regulations.gov*. Follow the on-line instructions for submitting comments.
- *Agency Web site: http://www.epa.gov/edocket*. EDOCKET, EPA's electronic public docket and comment system, is EPA's preferred method for receiving comments. Follow the on-line instructions for submitting comments.
- *E-mail: a-and-r-docket@epa.gov.*
- *Fax:* (202) 566–1741.
- *Mail:* National Emission Standards for Hazardous Air Pollutants (NESHAP) for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units Docket, Environmental Protection Agency, Mailcode: 6102T, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Please include a total of two copies.
- *Hand Delivery:* Environmental Protection Agency, 1301 Constitution Avenue, NW., Room B102, Washington, DC 20460. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. OAR–2002–0033. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *http://www.epa.gov/edocket*, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through EDOCKET, regulations.gov, or e-mail. The EPA EDOCKET and the Federal regulations.gov Web sites are ''anonymous access'' systems, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through EDOCKET or regulations.gov, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the docket are listed in the EDOCKET index at *http://www.epa.gov/edocket*. Although listed in the index, some information is not publicly available, *i.e.*, CBI or other information whose disclosure is restricted by statute. Certain other information, such as copyrighted materials, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in EDOCKET or in hard copy form in Docket ID No. OAR–2002–0033 (or A–97–36), EPA/DC, EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: Mr. Robert B. Lucas, Emission Standards Division (C439–03), Office of Air Quality Planning and Standards, Environmental Protection Agency, Research Triangle Park, NC 27711, telephone number (919) 541–0884, fax number (919) 541–3470, e-mail address: *lucas.bob@epa.gov*.

SUPPLEMENTARY INFORMATION: *Regulated Entities.* Categories and entities potentially regulated by this action include:

Category	NAICS code[1]	Examples of regulated entities
Industry	32411	Petroleum refineries that operate catalytic cracking units, catalytic reforming units, or sulfur recovery units.
Federal government		Not affected.
State/local/tribal government		Not affected.

[1] North American Industry Classification System.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility is regulated by this action, you should examine the applicability criteria in 40 CFR 63.1561 of the NESHAP for petroleum refineries: Catalytic cracking units, catalytic reforming units, and sulfur recovery units. If you have questions regarding the applicability of this action to a particular entity, consult the contact person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Worldwide Web (WWW). In addition to being available in the docket, an electronic copy of today's direct final rule amendments will also be available on the Worldwide Web (WWW) through the Technology Transfer Network (TTN). Following the Administrator's signature, a copy of the direct final rule amendments will be placed on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg*. The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Judicial Review. Under section 307(b)(1) of the CAA, judicial review of the direct final amendments is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by April 11, 2005. Under section 307(d)(7)(B) of the CAA, only an objection to the final amendments that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the CAA, the requirements established by the final amendments may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce these requirements.

Comments. We are publishing the amendments as a direct final rule without prior proposal because we view the amendments as noncontroversial and do not anticipate adverse comments. However, in the Proposed Rules section of this **Federal Register**, we are publishing a separate document that will serve as the proposal for the amendments contained in this direct final rule in the event that significant adverse comments are filed. If we receive any significant adverse comments on one or more distinct amendments, we will publish a timely withdrawal in the **Federal Register** informing the public which provisions will become effective and which provisions are being withdrawn due to adverse comment. We will address all public comments in a subsequent final rule based on the proposed rule. We will not institute a second comment period on this direct final rule. Any parties interested in commenting must do so at this time.

Outline. The information presented in this preamble is organized as follows:

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B. How are we changing the testing and monitoring requirements for catalytic cracking units?
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D. What new alternative is available for calculating the volumetric flow rate of exhaust gases from catalytic cracking units?
E. What new monitoring alternative is available for a catalytic cracking unit with a wet scrubber if the unit is subject to the new source performance standards for petroleum refineries?
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I. Background

On April 11, 2002 (67 FR 17762), we issued the national emission standards for hazardous air pollutants (NESHAP) for catalytic cracking units (CCU), catalytic reforming units (CRU), and sulfur recovery units (SRU) at petroleum refineries (40 CFR part 63, subpart UUU). The NESHAP establish emissions limits for hazardous air pollutants (HAP) emitted from vents on the three types of process units, as well as work practice standards for by-pass lines. The NESHAP implement section 112(d) of the CAA by requiring all petroleum refineries that are major sources to meet standards reflecting the application of the maximum achievable control technology (MACT).

After publication of the NESHAP, two industry trade associations and various individual refineries raised issues and questions regarding the applicability of the NESHAP and the technical requirements for installation, operation, and maintenance of continuous parameter monitoring systems (CPMS). The industry representatives and a control technology manufacturer also requested that we clarify the requirements for CRU depressurizing and purging, add more compliance provisions for CRU with internal scrubbing systems, and include new provisions for CRU that use emission control technologies other than scrubbers. The industry representatives also requested clarification of various performance testing and monitoring provisions. Other questions were raised at an implementation workshop held in January 2003. Today's direct final rule amendments respond to the issues raised since promulgation and will reduce compliance uncertainties, encourage the use of new control technologies, and improve understanding of the NESHAP requirements.

In addition, since publication of the NESHAP, we have identified a number of minor technical and editorial errors requiring correction. Rather than publish a separate notice of corrections, we are including those changes along with the amendments.

II. Summary of the Direct Final Rule Amendments

A. How Are We Changing the Affected Source Designations?

One of the issues raised by the industry representatives concerns the language in 40 CFR 63.1562 where we identified the affected sources as each CCU that regenerates catalyst, each CRU that regenerates catalyst, and each SRU and the tail gas treatment unit serving it. In designating the affected source as the unit rather than the vent or group of vents on the unit (as originally proposed), we inadvertently made the NESHAP more stringent for some facilities, and these facilities did not have an opportunity to comment on the change. Therefore, we are revising the designation of affected sources to be

more consistent with the rule as proposed. The direct final rule amendments define the process unit affected sources as:

- The process vent or group of process vents on fluidized CCU units that is associated with regeneration of the catalyst used in the unit (*i.e.*, the catalyst regeneration flue gas vent).
- The process vent or group of process vents on CRU (including but not limited to semi-regenerative, cyclic, or continuous processes), that is associated with regeneration of the catalyst used in the unit. This affected source includes vents that are used during the unit depressurization, purging, coke burn, and catalyst rejuvenation.
- The process vent or group of process vents on Claus or other types of sulfur recovery plant units or the tail gas treatment units serving sulfur recovery plants that is associated with sulfur recovery.

B. How Are We Changing the Testing and Monitoring Requirements for Catalytic Cracking Units?

The initial compliance provisions in 40 CFR 63.1564(b)(1) require the owner or operator to install, operate, and maintain a CPMS according to the requirements in 40 CFR 63.1572 and Table 3 to subpart UUU. Facilities that are not subject to the new source performance standards (NSPS) for petroleum refineries and that elect to meet the particulate matter (PM) or nickel (Ni) limit in the NESHAP are required to monitor the gas flow rate to a wet scrubber. After promulgation, industry representatives recommended that we revise the CCU monitoring requirements to allow gas flow rate measurements before or after the control device. The direct final rule amendments revise the requirements in Table 3 to subpart UUU to allow measurement of the gas flow rate entering or exiting the control device. This change will improve implementation of the NESHAP and avoid unnecessary costs of changing current practices. The direct final rule amendments also revise the footnotes to Tables 3 and 7 to subpart UUU to change the citation for the alternative method for determining gas flow rate from 40 CFR 63.1573(a) to 40 CFR 63.1573(a)(1) to accommodate the new alternative for calculating the volumetric flow rate of exhaust gases when computing the PM emissions rate.

The initial compliance provisions in 40 CFR 63.1564(b)(2) require the owner or operator to conduct a performance test for certain CCU according to the requirements in Table 4 to subpart UUU. After promulgation, industry representatives recommended that we delete the sampling rate requirements cited for EPA Method 29 (40 CFR part 60, appendix A). According to the commenters, the sampling rate requirement is unnecessary because the method already includes appropriate sampling requirements. We agree and have deleted the 0.028 dry standard cubic meters per minute (dscm/min)/ 0.74 dry standard cubic feet per minute (dscf/min) sampling rate requirement from Table 4 to subpart UUU.

C. What New Procedure Is Available for Determining the Metal or Total Chloride Concentration on Catalyst Particles?

The owner or operator of a CCU subject to a Ni limit for inorganic HAP emissions must determine the equilibrium catalyst (E-cat) Ni concentration value during the initial performance test and at frequent intervals afterward for monitoring requirements. Several methods are currently used within the industry for this purpose and are referenced in the NESHAP, as well as any alternative method satisfactory to the Administrator. Industry experts and vendors recommended that the NESHAP allow a new procedure that was not fully developed at the time the NESHAP were promulgated. The direct final rule amendments add the new procedure, ''Determination of Metal Concentration on Catalyst Particles (Instrumental Analyzer Procedure)'' to appendix A of subpart UUU. This procedure can be used to analyze catalyst particles (Ni compounds and total chlorides) from CCU, CRU, and other processes specified within EPA regulations. The direct final rule amendments revise Table 4 to subpart UUU to reference the new procedure.

D. What New Alternative is Available for Calculating the Volumetric Flow Rate of Exhaust Gases From Catalytic Cracking Units?

The initial compliance provisions in 40 CFR 63.1564(b)(4) require the owner or operator of a CCU subject to the PM limit in the NSPS for petroleum refineries to compute the PM emission rate using Equation 1 of 40 CFR 63.1564. This calculation requires measurement of the volumetric flow rate of exhaust gas from the catalyst regenerator (''Q_r''). The direct final rule amendments revise the definition of ''Q_r'' to refer to a new alternative procedure in 40 CFR 63.1573(a)(2) that can be used to determine the volumetric flow rate of exhaust gas. This procedure can be used by plants that have a gas analyzer installed in the catalytic cracking regenerator exhaust vent prior to the addition of air or other gas streams. The new alternative allows measurement of the flow rate after an electrostatic precipitator, but requires measurement of the flow rate before a carbon monoxide boiler.

E. What New Monitoring Alternative is Available for a Catalytic Cracking Unit With a Wet Scrubber if the Unit Is Subject to the New Source Performance Standards for Petroleum Refineries?

The NSPS for petroleum refineries (40 CFR part 60, subpart J) require a continuous opacity monitoring system (COMS) for a fluidized CCU to demonstrate continuous compliance with the opacity limit in 40 CFR 60.102(a)(2). Subpart UUU requires facilities that are already subject to the NSPS to meet the NSPS requirements, including the opacity limit and COMS requirements.

Technical experience has shown that COMS are not feasible for wet scrubber PM control systems. We have already acknowledged the technical problems associated with the use of COMS on wet scrubbers by requiring other monitoring methods (CPMS for pressure drop and liquid-to-gas ratio). However, these requirements apply under other compliance options and not to CCU already subject to the NSPS.

Some facilities with CCU subject to the NSPS use wet scrubbers to meet the PM limit and already have alternative monitoring requirements approved under the NSPS. For these reasons, one industry representative requested that the NESHAP accept alternative monitoring requirements that have already been approved under the NSPS. Therefore, we are adding a new paragraph (f) to 40 CFR 63.1573 to provide for use of the approved alternative under subpart UUU.

Monitoring alternatives for CCU subject to the NSPS that have already been approved may not meet the criteria for MACT standards. For example, the alternative may not include provisions for demonstrating continuous compliance such as meeting an operating limit, collecting and reducing monitoring data, and recordkeeping/ reporting requirements. While we cannot automatically approve an alternative that we have not seen, we see no reason to require a second formal approval process for the same control system and emission limit. To this end, we have added procedures for requesting alternative requirements specific to this situation.

We are requiring that an owner or operator submit a copy of the approved alternative monitoring method in the notification of compliance status (or

before), along with a brief description of the continuous monitoring system, the applicable operating limit, and the continuous compliance requirements. We will contact you within 30 calendar days after receipt, to tell you if the alternative is approved. This alternative does not eliminate your responsibility to comply with the opacity limit, which would remain applicable for enforcement purposes. This option is not available to facilities that elect to comply with the NSPS requirements in subpart UUU. These facilities must request an alternative monitoring method under the procedures in 40 CFR 63.8(f).

F. How Are we Clarifying the Emission Limitations for Catalytic Reforming Units?

The requirements for organic HAP emissions in 40 CFR 63.1566(a)(3) state that the CRU emissions and operating limits in Tables 15 and 16 to subpart UUU apply to emissions from process vents that occur during depressuring and purging operations. The NESHAP specify in 40 CFR 63.1566(a)(4) that the limits do not apply to depressurizing and purging operations when the reactor vent pressure is 5 pounds per square inch (psig) or less. Applicable process vents include those used during unit depressurization, purging, coke burn, catalyst rejuvenation, and reduction or activation purge. Industry representatives noted the current language is unclear as to whether the limits apply only to the initial depressurization cycle or include subsequent depressuring and purging cycles when the reactor pressure is greater than 5 psig. In response, we are amending 40 CFR 63.1566(a)(3) to clarify our intent regarding the control of organic HAP emissions from CRU depressurizing and purging.

Our intent in the NESHAP was that the organic HAP requirements apply to the initial depressuring and catalyst purging operations that occur prior to coke burn-off. Organic HAP emissions are expected during the initial depressurization and catalyst purge cycles. No additional organic HAP emission controls are used during coke burn-off, beyond the combustion process inherent during this process, and our data indicate there are minimal organic emissions from coke burn-off and subsequent CRU regeneration cycle purges.

Industry representatives suggested that we limit the applicability of the emissions limit to only the initial depressuring and first nitrogen purge. We do expect that, after some number of purges, the HAP concentration in the purge may be less than the required outlet HAP concentration from a combustion control device. Under the NESHAP, all purges greater than 5 psig go to a combustion control device (or equivalent combustion device), regardless of the HAP concentration in the affected stream.

Initially, we attempted to specify the number of purges to be controlled because the organic HAP emissions would generally be very low beyond the first or second purge. However, our information indicates that the purging processes vary widely (*e.g.*, different systems use different purge gases, different purge temperatures, and different amounts of purge gas per unit of catalyst). Consequently, specifying the number of purges that must be controlled does not necessarily reflect a performance level. Additionally, recent data show that, for some CRU purge conditions, subsequent purges after the initial nitrogen purge may contain substantial amounts of benzene—on the order of 100 parts per million by volume (ppmv), which translates to emissions of about 1 ton per year (tpy). For other process purging conditions, however, subsequent purges have very low levels of HAP. We concluded that mandating specific purging conditions would reduce operator flexibility and would make compliance, for certain CRU processes, to be technically infeasible. We decided, therefore, to clarify that uncontrolled purging operations greater than 5 psig are acceptable if the total organic carbon (TOC) concentration is less than the currently required outlet concentration of a combustion control device (*i.e.*, less than 20 ppmv), and to provide compliance options for these purges.

Furthermore, the background information supporting the performance achievable by a combustion control device indicates that the 20 ppmv emissions limit was established ''by compound exit concentration'' rather than by a specified indicator of TOC, such as propane. As the primary HAP of concern from these CRU depressuring and purging vents is benzene, it is more appropriate to establish the 20 ppmv emission limit as hexane (*i.e.*, a C_6 hydrocarbon) rather than as propane. We are, therefore, changing the CRU TOC concentration requirements (which are used as a surrogate for organic HAP) to 20 ppmv TOC or nonmethane TOC (dry basis as hexane), corrected to 3 percent oxygen. This applies to both the concentration limit for the control device and the concentration limit for emissions discharged directly to the atmosphere.

This approach adds compliance options for ''uncontrolled'' purging cycles that are greater than 5 psig and less than 20 ppmv TOC (dry basis as hexane). First, the purging conditions used by the plant to remove organic HAP from the CRU catalyst during controlled purges prior to direct release to the atmosphere must be specified in the operation, maintenance, and monitoring plan. An initial performance test is conducted on the first directly released catalyst purge (following the purging conditions specified in the plan) to demonstrate that the purges specified in the plan effectively achieve the required emission limit. Subsequently, adherence to the purging procedures as specified in the plan is used to demonstrate continuous compliance.

Industry representatives also requested that we clarify the emission limits for organic HAP emissions from CRU in 40 CFR 63.1567(a) to indicate which limits apply when different reactors in the CRU are regenerated in separate regeneration systems. The direct final rule amendments state that, in this case, the emission limits in Table 22 to subpart UUU apply to each separate regeneration system. The direct final rule amendments also clarify that the TOC outlet concentration limit is 20 ppmv dry basis as hexane.

In response to industry comments, we expanded the number of test methods that can be use to measure organic HAP emissions. For the 98 percent mass emission reduction standard, you can use EPA Method 25 in 40 CFR part 60, appendix A, to directly measure nonmethane TOC as carbon or the combination of EPA Methods 25A and 18 in 40 CFR part 60, appendix A, to determine nonmethane TOC emissions. If the outlet TOC concentration is expected to be less than 50 ppmv (as carbon), you can use EPA Method 25A to measure the TOC concentration as hexane. For the 20 ppmv concentration limit, you can measure the TOC concentration using EPA Method 25A or determine the nonmethane TOC concentration using the combination of Methods 25A and 18. We made changes to the equations in 40 CFR 63.1564 and relevant tables to make these distinctions. We also added a definition of ''nonmethane TOC'' to 40 CFR 63.1579.

The direct final rule amendments also clarify the inorganic HAP emission and operating limits to indicate that the requirements apply to each applicable CRU process vent during coke burn-off and catalyst rejuvenation. In response to industry comments, we are also changing the compliance equations in

40 CFR 63.1567 to allow for hydrogen chloride (HCl) measurements below detectable limits of the method after correction for oxygen content.

G. How Are we Changing the Monitoring Requirements for Catalytic Reforming Units?

The NESHAP allow plants to measure and record the pH of the water (or scrubbing liquid) exiting the scrubber at least once an hour as an alternative to a pH CPMS. After promulgation, industry representatives recommended that we allow alkalinity measurements as an alternative to pH. Alkalinity measurements are more reliable because they give the actual acid content of the water (or scrubbing liquid) while pH measurements indicate only how much (more or less) acid is needed. We agree and have changed 40 CFR 63.1573(b) to allow plants to measure and record the alkalinity of the water (or scrubbing liquid) exiting the wet scrubber at least once an hour during coke burn-off and catalyst rejuvenation using titration as an alternative to a CPMS. We have also changed Tables 23, 24, 25, and 28 to subpart UUU to include the alternative for alkalinity measurements. In response to industry comments, we have also allowed the pH alternative to apply to CRU meeting the HCl percent reduction standard.

The NESHAP allow plants to measure the catalytic regenerator exhaust gas flow rate from a CCU as an approved alternative to a CPMS if the unit does not introduce any other gas streams into the catalyst regeneration vent (*i.e.*, complete combustion units with no additional combustion devices). In response to industry comments, we have expanded the alternative in 40 CFR 63.1573(a) to apply to CRU that operate as a constant pressure system during the coke burn and rejuvenation cycles.

After promulgation, industry representatives recommended that we also expand the CRU monitoring requirements to allow gas flow rate measurements before or after the control device. We agree and have changed Tables 24 and 25 of subpart UUU accordingly.

In response to questions raised at implementation workshops for plant personnel, we have added provisions to the performance test requirements for CRU to reflect differences among semi-regenerative, cyclic, and continuous processes. The direct final rule amendments require plants to test semi-regenerative and cyclic units during the coke burn-off and catalyst rejuvenation cycle. However, the tests cannot be done during the first hour or the last 6 hours of the cycle for a semi-regenerative unit, or during the first hour or the last 2 hours of the cycle for a cyclic regeneration unit. Plants must conduct the performance test for a continuous regeneration unit no sooner than 3 days after the process unit or control system startup.

H. What New Options Are Available For a Catalytic Reforming Unit With an Internal Scrubbing System?

Industry representatives expressed concern that the NESHAP do not contain provisions allowing a CRU with an internal scrubbing system to meet the percent reduction standard instead of the concentration limit for HCl emissions.

The direct final rule amendments change the rule language related to the HCl emissions limits (and other provisions) by removing the phrase ''using a control device.'' These changes allow CRU with an internal scrubbing system or alternative emissions reduction technique to meet either the percent reduction standard or concentration limit. To improve understanding of the NESHAP, we have added a definition for ''internal scrubbing system.'' The direct final rule amendments also add provisions to Tables 23 through 28 to subpart UUU for CRU with an internal scrubbing system meeting the HCl percent reduction standard and CRU with a fixed-bed or moving-bed gas-solid adsorption system.

The direct final rule amendments establish operating limits and compliance provisions specific to CRU with an internal scrubbing system meeting the HCl percent reduction standard. The operating limits require plants to maintain the daily average pH or alkalinity of the water (or scrubbing liquid) exiting the internal scrubbing system and the daily average liquid-to-gas ratio at or above the limit established during the performance test. Plants must conduct performance tests to demonstrate initial compliance with the applicable HCl emission standard and to establish operating limits. Performance test procedures are given for each type of system. To demonstrate continuous compliance, plants must install, operate, and maintain CPMS to monitor during coke burn-off and catalyst rejuvenation, the daily average pH or alkalinity of the water (or scrubbing liquid) exiting the internal scrubbing system, and the daily average liquid-to-gas ratio. Plants may use pH strips as an approved alternative to a pH CPMS, or discrete titration as an alternative to a CPMS for alkalinity.

I. What New Options Are Available For a Catalytic Reforming Unit With a Different Type of Control System?

Industry representatives and technology vendors expressed concern that the NESHAP do not include compliance provisions for continuous CRU that may use process modifications, pollution prevention control techniques, or alternative control systems other than internal or external (add-on) wet scrubbers to comply with the emission limitations. A refinery process design firm provided data indicating that gas-solid adsorption systems can meet the HCl emission limitations for CRU. The system also acted as a pollution prevention technique by reducing the total amount of chloriding agent needed during catalyst regeneration. The direct final rule amendments add provisions to accommodate these control scenarios. The new provisions improve the NESHAP by encouraging the use of new technologies that meet the MACT level of control.

Plants with a fixed-bed gas-adsorption system must meet two operating limits during coke burn-off and catalyst rejuvenation:

- The daily average temperature of the gas entering or exiting the adsorption system must not exceed the limit established during the performance test; and
- The HCl concentration in the adsorption system exhaust gas must not exceed the limit established during the performance test.

Plants must conduct a performance test to demonstrate initial compliance and to establish operating limits. To demonstrate continuous compliance, plants must install, operate, and maintain CPMS to monitor the daily average temperature of the gas entering or exiting the adsorption system. In addition, plants must monitor HCl during coke burn-off and catalyst rejuvenation using a colormetric tube sampling system to measure the concentration in the adsorption system exhaust and at a point within the adsorbent bed not to exceed 90 percent of the total length of the bed. If the HCl concentration at the sampling location with the adsorption bed exceeds the operating limit, plants must follow the procedures in their operation and maintenance plan. These procedures must require, at a minimum, that plants remeasure the HCl concentration at both the adsorption system exhaust and at the sampling location within the adsorbent bed and replace the sorbent material in the bed before the next regeneration cycle if the HCl

concentration at either location is above the operating limit.

The direct final rule amendments also establish operating limits and compliance provisions for CRU with moving-bed gas-solid adsorption systems. The operating limits are:

- The daily average temperature of the gas entering or exiting the adsorption system must not exceed the limit established during the performance test;
- The weekly average chloride level on the sorbent entering the adsorption system must not exceed the design or manufacturer's recommended limit (1.35 weight percent for the Chlorsorb™ system); and
- The weekly average chloride level on the sorbent exiting the adsorption system must not exceed the design or manufacturer's recommended limit (1.8 weight percent for the Chlorsorb™ system).

Plants must conduct a performance test to demonstrate initial compliance and to establish an operating limit for the daily average gas temperature. To demonstrate continuous compliance, plants must monitor the daily average gas temperature using a CPMS. To demonstrate continuous compliance with the operating limits for chloride level, plants must collect and analyze samples of the sorbent entering and exiting the system for total chloride concentration using the new procedure, ''Determination of Metal Concentration on Catalyst Particles (Instrument Analyzer Procedure)'' in appendix A of these direct final amendments or the specified methods in EPA Publication No. SW–846, ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods'' (Revision 5, April 1998). Plants must determine and record the weekly chloride content and maintain the weekly average chloride content below the design operating limits.

J. How Are We Changing The Requirements For Continuous Parameter Monitoring Systems?

The technical specifications for CPMS in Table 41 to subpart UUU were added to the NESHAP after proposal based on provisions we have included in other NESHAP. We included these provisions to ensure that CPMS are installed, calibrated, and operated in a manner that would yield accurate and reliable information on the performance of control devices. Industry representatives objected to the inclusion of such detailed requirements after proposal with no opportunity to comment on the provisions.

We have decided not to include the performance specifications for CPMS in the rule at this time. As discussed in the preamble to the Generic MACT NESHAP amendments (67 FR 46260, July 12, 2002), we are currently developing Performance Specification (PS–17) for CPMS and quality assurance procedures that will apply to all sources subject to NESHAP under 40 CFR part 63. A proposed rule for these specifications is expected to be available in 2005. This approach will avoid the possibility that the specifications ultimately issued for all NESHAP differ significantly from those in the Petroleum Refineries NESHAP.

The NESHAP state that each CPMS must be installed, operated, and maintained according to the requirements in Table 41 of subpart UUU and in a manner consistent with the manufacturer's or other written procedures that provide adequate assurance that the equipment will monitor accurately. The amendments remove the reference to Table 41 from 40 CFR 63.1572(c) for those CPMS that will be covered by PS–17 and quality assurance procedures. Until PS–17 is available, facilities must install, operate, and maintain CPMS in a manner consistent with the manufacturer's or other written procedures that provide adequate assurance that the equipment will monitor accurately.

Table 41 to subpart UUU also contains requirements for pH strips and colormetric sampling systems. These requirements were added to the NESHAP in response to comments and are not expected to be covered by the new PS–17 and quality assurance procedures. Consequently, we have not removed these requirements from the table.

K. What Corrections Are We Making?

We are correcting numbering errors and citations in several sections of the NESHAP. We are also amending the rule to correct publication errors in various tables.

We are correcting a unit conversion error in Tables 1 through 3 to subpart UUU. These tables cite the incremental PM emission rate for discharged gases that pass through an incinerator or waste heat boiler in which auxiliary or supplemental liquid or solid fossil fuel is burned as 43.0 grams per Megajoule of heat input attributable to the liquid or solid fossil fuel. The corrected value is 43.0 grams per Gigajoule; no change is being made to the English unit equivalent limit (0.10 pound per million British thermal units). We are making several minor corrections to these tables to ensure that both limits are cited consistently and accurately.

We are correcting Table 5 to subpart UUU to list the proper test methods required for PM performance tests for metal HAP emissions. The amended table requires EPA Method 5B or 5F (40 CFR part 60, appendix A) to determine PM emissions and associated moisture content for a unit without a wet scrubber; EPA Method 5B is required to determine PM emissions and associated moisture content for a unit with a wet scrubber.

We are correcting Table 6 to subpart UUU to specify the use of Equation 1 (the proper equation for calculation of coke burn-off) rather than Equation 2.

We are correcting Table 18 to subpart UUU to correct a typographical error in a cross reference to certain requirements for flares in the NESHAP General Provisions (40 CFR part 63, subpart A).

We are correcting Tables 31, 33, and 34 to subpart UUU to clarify the monitoring and compliance requirements for a sulfur recovery unit subject to the TRS limit. Under this option, the owner or operator may use a TRS continuous emission monitoring system or CPMS, and the continuous compliance requirements depend on the type of monitoring system. The direct final rule amendments separate the requirements according to the type of monitoring system and clarify that compliance is based on a 12-hour rolling average like the NSPS requirements.

We also are clarifying our comment in the explanation column of Table 44 for the citation 40 CFR 63.6(i), which allows facilities to request a 1-year extension of compliance if necessary to install controls. We are revising the table to state that the extension of compliance under 40 CFR 63.6(i)(4) is not applicable to a facility that installs catalytic cracking feed hydrotreating and receives an extended compliance date under 40 CFR 63.1563(c). We are also revising Table 44 to subpart UUU to change the citation to 40 CFR 63.9(b)(3) to indicate its current reserved status under the NESHAP General Provisions (40 CFR part 63).

III. Summary of Non-Air Health, Environmental, Energy, and Cost Impacts

The NESHAP will reduce emissions of many HAP emitted from the affected sources at petroleum refineries, including particulate metals, organics, and reduced sulfur compounds. When fully implemented, we estimate that HAP emissions will be reduced by nearly 11,000 tpy. Emissions of other pollutants such as volatile organic

compounds, particulate matter, carbon monoxide, and hydrogen sulfide will be reduced by about 60,000 tpy.

There will not be any adverse non-air health, environmental, energy, cost (or economic) impacts as a result of the direct final rule amendments because no new requirements are imposed on any facility. The new option for CRU will allow for the use of new control technology to meet the HCl emission limitations, which may reduce the costs and energy impacts of add-on controls.

IV. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 5173, October 4, 1993), the EPA must determine whether the regulatory action is ''significant'' and, therefore, subject to Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Executive Order defines ''significant regulatory action'' as one that is likely to result in standards that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect, in a material way, the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlement, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that the direct final rule amendments are not a ''significant regulatory action'' under the terms of Executive Order 12866 and are, therefore, not subject to OMB review.

B. Paperwork Reduction Act

This action does not impose any new information collection burden. The direct final rule amendments consist primarily of new compliance options, clarifications, and corrections to the NESHAP that impose no new information collection requirements on industry or EPA. However, the OMB has previously approved the information collection requirements in the existing regulation (40 CFR part 63, subpart UUU) under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, and has assigned OMB control number 2060–0554, EPA Information Collection Request (ICR) number 1844.02. A copy of the OMB approved ICR may be obtained from Susan Auby, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW., Washington, DC 20460 or by calling (202) 566–1672.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purpose of collecting, validating, and verifying information; processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR part 63 are listed in 40 CFR part 9.

C. Regulatory Flexibility Act

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the direct final rule amendments.

For purposes of assessing the impacts of today's direct final rule amendments on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impact of today's direct final rule amendments on small entities, the EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. In determining whether a rule has a significant economic impact on a substantial number of small entities, the impact of concern is any significant adverse economic impact on small entities, since the primary purpose of the regulatory flexibility analyses is to identify and address regulatory alternatives ''which minimize any significant economic impact of the proposed rule on small entities'' (5 U.S.C. 603 and 604). Thus, an agency may conclude that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, or otherwise has a positive economic effect on all of the small entities subject to the rule.

There will be a positive impact on small entities because the direct final rule amendments add new compliance provisions to increase flexibility, decrease unnecessary costs, and make clarifying changes to improve implementation of the NESHAP. These changes are voluntary and do not impose new costs. We have, therefore, concluded that today's direct final rule amendments will relieve regulatory burden for all small entities.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, the EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires the EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows the EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before the EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments

to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that the direct final rule amendments do not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in aggregate, or the private sector in any 1 year. No new costs are attributable to the direct final rule amendments. Thus, today's direct final rule amendments are not subject to the requirements of sections 202 and 205 of the UMRA. The EPA has also determined that the direct final rule amendments contain no regulatory requirements that might significantly or uniquely affect small governments because they contain no requirements that apply to such governments or impose obligations upon them. Thus, the direct final rule amendments are not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.''

The direct final rule amendments do not have federalism implications. They will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132, because State and local governments do not own or operate any sources that would be subject to the direct final rule amendments. Thus, Executive Order 13132 does not apply to the direct final rule amendments.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175 (65 FR 67249, November 6, 2000) requires EPA to develop an accountable process to ensure ''meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.'' The direct final rule amendments do not have tribal implications, as specified in Executive Order 13175, because tribal governments do not own or operate any sources subject to the direct final rule amendments. Thus, Executive Order 13175 does not apply to the direct final rule amendments.

G. Executive Order 13045: Protection of Children From Environmental Health & Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be ''economically significant,'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, we must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives.

We interpret Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The direct final rule amendments are not subject to Executive Order 13045 because the NESHAP (and subsequent amendments) are based on technology performance and not on health or safety risks.

H. Executive Order 13211: Actions That Significantly Affect Energy, Supply, Distribution, or Use

The direct final rule amendments are not subject to Executive Order 13211 (66 FR 28355, May 22, 2001) because they are not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113, § 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in the regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impracticable. Voluntary consensus standards are technical standards (*e.g.*, material specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA requires Federal agencies to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

The direct final rule amendments include a new procedure, ''Determination of Metal Concentration on Catalyst Particles (Instrumental Analyzer Procedure).'' This procedure was developed in consultation with industry experts and equipment vendors for the purpose of determining the metal or total chloride concentration on catalyst particles. This new procedure was not fully developed at the time the NESHAP were issued and reflects current practices used by many plants within the industry. The new procedure is not mandatory; plants also may use one of several existing EPA methods in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods'' (EPA Publication SW–846, Revision 5, April 1998) or an alternative method satisfactory to the Administrator.

Consistent with the NTTAA, we conducted a search to identify voluntary consensus standards for use in determining the metal or total chloride concentration on catalyst particles. This search identified one voluntary consensus standard, ASTM D7085–04, ''Standard Guide for Determination of Chemical Elements in Fluid Catalytic Cracking Catalysts by X-Ray Fluorescence Spectrometry (XRF).'' This method contains detailed sample preparation procedures that may be a useful supplement to the instrumental method included in the direct final rule amendments. However, we have not adopted ASTM D7085–04 as an alternative to the instrumental method because the method does not include equivalent procedures for determining zero and calibration drift, instrument energy calibration, and calibration accuracy, or specific quality assurance procedures for analyzing calibration standards or catalyst samples.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller

General of the United States prior to publication of the rule in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2). The direct final rule amendments will be effective on April 11, 2005.

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Hazardous substances, Reporting and recordkeeping requirements.

Dated: February 1, 2005.

Stephen L. Johnson,

Acting Administrator.

■ For the reasons set out in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

Subpart UUU—[AMENDED]

■ 2. Section 63.1562 is amended by revising paragraphs (b)(1) through (3) to read as follows:

§ 63.1562 What parts of my plant are covered by this subpart?

* * * * *

(b) * * *

(1) The process vent or group of process vents on fluidized catalytic cracking units that are associated with regeneration of the catalyst used in the unit (*i.e.*, the catalyst regeneration flue gas vent).

(2) The process vent or group of process vents on catalytic reforming units (including but not limited to semi-regenerative, cyclic, or continuous processes) that are associated with regeneration of the catalyst used in the unit. This affected source includes vents that are used during the unit depressurization, purging, coke burn, and catalyst rejuvenation.

(3) The process vent or group of process vents on Claus or other types of sulfur recovery plant units or the tail gas treatment units serving sulfur recovery plants, that are associated with sulfur recovery.

* * * * *

■ 3. Section 63.1564(b)(4) is amended by revising the definition of the symbol ''Q_r'' for Equation 1 of to read as follows:

§ 63.1564 What are my requirements for metal HAP emissions from catalytic cracking units?

* * * * *

Q_r = Volumetric flow rate of exhaust gas from catalyst regenerator before adding air or gas streams. Example: You may measure upstream or downstream of an electrostatic precipitator, but you must measure upstream of a carbon monoxide boiler, dscm/min (dscf/min). You may use the alternative in either § 63.1573(a)(1) or (a)(2), as applicable, to calculate Q_r;

* * * * *

■ 4. Section 63.1566 is amended by:

■ a. Revising paragraphs (a)(1)(ii) and (a)(3);

■ b. Revising paragraph (b)(4)(i) introductory text;

■ c. Revising the definitions of the symbols ''E'' and ''M_c'' in Equation 1 of paragraph (b)(4)(i);

■ d. Revising Equation 2 of paragraph (b)(4)(i);

■ e. Redesignating paragraph (b)(5) as (b)(4)(ii);

■ f. Revising Equation 4 in the newly designated paragraph (b)(4)(ii); and

■ g. Redesignating paragraphs (b)(6) through (b)(9) as (b)(5) through (b)(8).

The revisions and additions read as follows:

§ 63.1566 What are my requirements for organic HAP emissions from catalytic reforming units?

(a) * * *

(1) * * *

(ii) You can elect to meet a TOC or nonmethane TOC percent reduction standard or concentration limit, whichever is less stringent (Option 2).

* * * * *

(3) Except as provided in paragraph (a)(4) of this section, the emission limitations in Tables 15 and 16 of this subpart apply to emissions from catalytic reforming unit process vents associated with initial catalyst depressuring and catalyst purging operations that occur prior to the coke burn-off cycle. The emission limitations in Tables 15 and 16 of this subpart do not apply to the coke burn-off, catalyst rejuvenation, reduction or activation vents, or to the control systems used for these vents.

* * * * *

(b) * * *

(4) * * *

(i) If you elect the percent reduction standard under Option 2, calculate the emission rate of nonmethane TOC using Equation 1 of this section (if you use Method 25) or Equation 2 of this section (if you use Method 25A or Methods 25A and 18), then calculate the mass emission reduction using Equation 3 of this section as follows:

* * * * *

(Eq. 1)

Where:

E = Emission rate of nonmethane TOC in the vent stream, kilograms-C per hour;

* * * * *

M_c = Mass concentration of total gaseous nonmethane organic (as carbon) as measured and calculated using Method 25 in appendix A to part 60 of this chapter, mg/dscm; and

* * * * *

$$E = K_5\left(C_{TOC} - \tfrac{1}{6}C_{methane}\right)Q_s \qquad \text{(Eq. 2)}$$

Where:

K_5 = Constant, 1.8 x 10^{-4} (parts per million) $^{-1}$ (gram-mole per standard cubic meter) (gram-C per gram-mole-hexane) (kilogram per gram) (minutes per hour), where the standard temperature (standard cubic meter) is at 20 degrees C (uses 72g-C/g.mole hexane);

C_{TOC} = Concentration of TOC on a dry basis in ppmv as hexane as measured by Method 25A in appendix A to part 60 of this chapter;

$C_{methane}$ = Concentration of methane on a dry basis in ppmv as measured by Method 18 in appendix A to part 60 of this chapter. If the concentration of methane is not determined, assume $C_{methane}$ equals zero; and

Q_s = Vent stream flow rate, dry standard cubic meters per minute, at a temperature of 20 degrees C. * * *

$$C_{NMTOC,\,3\%O_2} = \left(C_{TOC} - \tfrac{1}{6}C_{methane}\right)\left(\frac{17.9\%}{20.9\% - \%O_2}\right) \qquad \text{(Eq. 4)}$$

Where:

$C_{NMTOC,\,3\%O_2}$ = Concentration of nonmethane TOC on a dry basis in ppmv as hexane corrected to 3 percent oxygen.

■ 5. Section 63.1567 is amended by:
■ a. Revising paragraphs (a)(1) introductory text and (a)(1)(i);
■ b. Redesignating paragraphs (b)(4) through (b)(6) as paragraphs (b)(5) through (b)(7); and
■ c. Adding new paragraph (b)(4).

The addition and revisions read as follows:

§ 63.1567 What are my requirements for inorganic HAP emissions from catalytic reforming units?

(a) * * *

(1) Meet each emission limitation in Table 22 to this subpart that applies to you. If you operate a catalytic reforming unit in which different reactors in the catalytic reforming unit are regenerated in separate regeneration systems, then these emission limitations apply to each separate regeneration system. These emission limitations apply to emissions from catalytic reforming unit process vents associated with the coke burn-off and catalyst rejuvenation operations during coke burn-off and catalyst regeneration. You can choose from the two options in paragraphs (a)(1)(i) through (ii) of this section:

(i) You can elect to meet a percent reduction standard for hydrogen chloride (HCl) emissions (Option 1); or

* * * * *

(b) * * *

(4) Use the equations in paragraphs (b)(4)(i) through (iv) of this section to determine initial compliance with the emission limitations.

(i) Correct the measured HCl concentration for oxygen (O_2) content in the gas stream using Equation 1 of this section as follows:

$$C_{HCl,\,3\%O_2} = \left(\frac{17.9\%}{20.9\% - \%O_2}\right) C_{HCl} \qquad \text{(Eq. 1)}$$

Where:

$C_{HCl,3\%}O_2$ = Concentration of HCl on a dry basis in ppmv corrected to 3 percent oxygen or 1 ppmv, whichever is greater;

C_{HCl} = Concentration of HCl on a dry basis in ppmv, as measured by Method 26A in 40 CFR part 60, appendix A; and

$\%O_2$ = Oxygen concentration in percent by volume (dry basis).

(ii) If you elect the percent reduction standard, calculate the emission rate of HCl using Equation 2 of this section; then calculate the mass emission reduction from the mass emission rates using Equation 3 of this section as follows:

$$E_{HCl} = K_6 C_{HCl} Q_s \qquad \text{(Eq. 2)}$$

Where:

$E_{HCl,}$ = Emission rate of HCl in the vent stream, grams per hour;

K_6 = Constant, 0.091 (parts per million)$^{-1}$ (grams HCl per standard cubic meter) (minutes per hour), where the standard temperature (standard cubic meter) is at 20 degrees Celsius (C); and

Q_s = Vent stream flow rate, dscm/min, at a temperature of 20 degrees C.

$$\text{HCl\%reduction} = \frac{E_{HCl,\,i} - E_{HCl,\,o}}{E_{HCl,\,i}} \times 100\% \qquad \text{(Eq. 3)}$$

Where:

$E_{HCl,i}$ = Mass emission rate of HCl at control device inlet, g/hr; and

$E_{HCl,o}$ = Mass emission rate of HCl at control device outlet, g/hr.

(iii) If you are required to use a colormetric tube sampling system to demonstrate continuous compliance with the HCl concentration operating limit, calculate the HCl operating limit using Equation 4 of this section as follows:

$$C_{HCl,\,ppmvLimit} = 0.9 C_{HCl,\,AveTube}\left(\frac{C_{HCl,\,RegLimit}}{C_{HCl,\,3\%O_2}}\right) \qquad \text{(Eq. 4)}$$

Where:

$C_{HCl,ppmvLimit}$ = Maximum permissible HCl concentration for the HCl concentration operating limit, ppmv;

$C_{HCl,AveTube}$ = Average HCl concentration from the colormetric tube sampling system, calculated as the arithmetic average of the average HCl concentration measured for each performance test run, ppmv or 1 ppmv, whichever is greater; and

$C_{HCl,RegLimit}$ = Maximum permissible outlet HCl concentration for the applicable catalytic reforming unit as listed in Table 22 of this subpart, either 10 or 30 ppmv.

(iv) If you are required to use a colormetric tube sampling system to demonstrate continuous compliance with the percent reduction operating limit, calculate the HCl operating limit using Equation 5 of this section as follows:

$$C_{HCl,\,\%Limit} = 0.9 C_{HCl,\,AveTube}\left(\frac{100 - \%\text{HClReduction}_{Limit}}{100 - \%\text{HClReduction}_{Test}}\right) \qquad \text{(Eq. 5)}$$

Where:

$C_{HCl,\%Limit}$ = Maximum permissible HCl concentration for the percent reduction operating limit, ppmv;

$\%HCl\ Reduction_{Limit}$ = Minimum permissible HCl reduction for the applicable catalytic reforming unit as listed in Table 22 of this subpart, either 97 or 92 percent; and

$\%HCl\ Reduction_{Test}$ = Average percent HCl reduction calculated as the arithmetic average HCl reduction calculated using Equation 3 of this section for each performance source test, percent.

* * * * *

■ 6. Section 63.1572 is amended by revising paragraphs (c) introductory text and (c)(1) to read as follows:

§ 63.1572 What are my monitoring installation, operation, and maintenance requirements?

* * * * *

(c) You must install, operate, and maintain each continuous parameter monitoring system according to the requirements in paragraphs (c)(1) through (5) of this section.

(1) The owner or operator shall install, operate, and maintain each continuous parameter monitoring system in a manner consistent with the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment will monitor accurately. The owner or operator shall also meet the equipment specifications in Table 41 of this subpart if pH strips or colormetric tube sampling systems are used.

* * * * *

■ 7. Section 63.1573 is amended by:

■ a. Revising paragraphs (a) and (b); and

■ b. Adding new paragraph (f).

The revisions and addition read as follows:

§ 63.1573 What are my monitoring alternatives?

(a) *What are the approved alternatives for measuring gas flow rate?* (1) You may use this alternative to a continuous parameter monitoring system for the catalytic regenerator exhaust gas flow rate for your catalytic cracking unit if the unit does not introduce any other gas streams into the catalyst regeneration vent (i.e., complete combustion units with no additional combustion devices). You may also use this alternative to a continuous parameter monitoring system for the catalytic regenerator atmospheric exhaust gas flow rate for your catalytic reforming unit during the coke burn and rejuvenation cycles if the unit operates as a constant pressure system during these cycles. If you use this alternative, you shall use the same procedure for the performance test and for monitoring after the performance test. You shall:

(i) Install and operate a continuous parameter monitoring system to measure and record the hourly average volumetric air flow rate to the catalytic cracking unit or catalytic reforming unit regenerator. Or, you may determine and record the hourly average volumetric air flow rate to the catalytic cracking unit or catalytic reforming unit regenerator using the appropriate control room instrumentation.

(ii) Install and operate a continuous parameter monitoring system to measure and record the temperature of the gases entering the control device (or exiting the catalyst regenerator if you do not use an add-on control device).

(iii) Calculate and record the hourly average actual exhaust gas flow rate using Equation 1 of this section as follows:

$$Q_{gas} = (1.12\text{scfm/dscfm}) \times (Q_{air} + Q_{other}) \times \left(\frac{Temp_{gas}}{293°\,K}\right) \times \left(\frac{latm.}{P_{vent}}\right) \qquad \text{(Eq. 1)}$$

Where:

Q_{gas} = Hourly average actual gas flow rate, acfm;

1.12 = Default correction factor to convert gas flow from dry standard cubic feet per minute (dscfm) to standard cubic feet per minute (scfm);

Q_{air} = Volumetric flow rate of air to regenerator, as determined from the control room instrumentations, dscfm;

Q_{other} = Volumetric flow rate of other gases entering the regenerator as determined from the control room instrumentations, dscfm. (Examples of ''other'' gases include an oxygen-enriched air stream to catalytic cracking unit regenerators and a nitrogen stream to catalytic reforming unit regenerators.);

$Temp_{gas}$ = Temperature of gas stream in vent measured as near as practical to the control device or opacity monitor, °K. For wet scrubbers, temperature of gas prior to the wet scrubber; and

P_{vent} = Absolute pressure in the vent measured as near as practical to the control device or opacity monitor, as applicable, atm. When used to assess the gas flow rate in the final atmospheric vent stack, you can assume P_{vent} = 1 atm.

(2) You may use this alternative to calculating Q_r, the volumetric flow rate of exhaust gas for the catalytic cracking regenerator as required in Equation 1 of § 63.1564, if you have a gas analyzer installed in the catalytic cracking regenerator exhaust vent prior to the addition of air or other gas streams. You may measure upstream or downstream of an electrostatic precipitator, but you shall measure upstream of a carbon monoxide boiler. You shall:

(i) Install and operate a continuous parameter monitoring system to measure and record the hourly average volumetric air flow rate to the catalytic cracking unit regenerator. Or, you can determine and record the hourly average volumetric air flow rate to the catalytic cracking unit regenerator using the catalytic cracking unit control room instrumentation.

(ii) Install and operate a continuous gas analyzer to measure and record the concentration of carbon dioxide, carbon monoxide, and oxygen of the catalytic cracking regenerator exhaust.

(iii) Calculate and record the hourly average flow rate using Equation 2 of this section as follows:

$$Q_r = \frac{79 \times Q_{air} + (100 - \%O_{xy}) \times Q_{oxy}}{100 - \%CO_2 - \%CO - \%O_2} \qquad \text{(Eq. 2)}$$

Where:

Q_r = Volumetric flow rate of exhaust gas from the catalyst regenerator before adding air or gas streams, dscm/min (dscf/min);

79 = Default concentration of nitrogen and argon in dry air, percent by volume (dry basis);

$\%O_{xy}$ = Oxygen concentration in oxygen-enriched air stream, percent by volume (dry basis);

Q_{oxy} = Volumetric flow rate of oxygen-enriched air stream to regenerator as determined from the catalytic cracking unit control room instrumentations, dscm/min (dscf/min);

$\%CO_2$ = Carbon dioxide concentration in regenerator exhaust, percent by volume (dry basis);

CO = Carbon monoxide concentration in regenerator exhaust, percent by volume (dry basis); and

$\%O_2$ = Oxygen concentration in regenerator exhaust, percent by volume (dry basis).

(b) *What is the approved alternative for monitoring pH or alkalinity levels?* You may use the alternative in paragraph (b)(1) or (2) of this section for a catalytic reforming unit.

(1) You shall measure and record the pH of the water (or scrubbing liquid) exiting the wet scrubber or internal scrubbing system at least once an hour during coke burn-off and catalyst rejuvenation using pH strips as an alternative to a continuous parameter monitoring system. The pH strips must meet the requirements in Table 41 of this subpart.

(2) You shall measure and record the alkalinity of the water (or scrubbing liquid) exiting the wet scrubber or internal scrubbing system at least once an hour during coke burn-off and catalyst rejuvenation using titration as an alternative to a continuous parameter monitoring system.

* * * * *

(f) *How do I apply for alternative monitoring requirements if my catalytic cracking unit is equipped with a wet scrubber and I have approved alternative monitoring requirements under the new source performance standards for petroleum refineries?*

(1) You may request alternative monitoring requirements according to the procedures in this paragraph if you meet each of the conditions in paragraphs (f)(1)(i) through (iii) of this section:

(i) Your fluid catalytic cracking unit regenerator vent is subject to the PM limit in 40 CFR 60.102(a)(1) and uses a wet scrubber for PM emissions control;

(ii) You have alternative monitoring requirements for the continuous opacity monitoring system requirement in 40 CFR 60.105(a)(1) approved by the Administrator; and

(iii) You are required by this subpart to install, operate, and maintain a continuous opacity monitoring system for the same catalytic cracking unit regenerator vent for which you have approved alternative monitoring requirements.

(2) You can request approval to use an alternative monitoring method prior to submitting your notification of compliance status, in your notification of compliance status, or at any time.

(3) You must submit a copy of the approved alternative monitoring requirements along with a monitoring plan that includes a description of the continuous monitoring system or method, including appropriate operating parameters that will be monitored, test results demonstrating compliance with the opacity limit used to establish an enforceable operating limit(s), and the frequency of measuring and recording to establish continuous compliance. If applicable, you must also include operation and maintenance requirements for the continuous monitoring system.

(4) We will contact you within 30 days of receipt of your application to inform you of approval or of our intent to disapprove your request.

■ 8. Section 63.1574 is amended by:

■ a. Revising paragraph (a)(3)(ii);

■ b. Revising paragraph (c); and

■ c. Revising the first sentence of paragraph (f) introductory text, revising paragraph (f)(2) introductory text, revising paragraphs (f)(2)(vi) and (f)(2)(x), and adding new paragraphs (f)(2)(xi) and (xii).

The revisions read as follows:

§ 63.1574 What notifications must I submit and when?

(a) * * *

(3) * * *

(ii) For each initial compliance demonstration that includes a performance test, you must submit the notification of compliance status, including the performance test results, no later than 150 calendar days after the compliance date specified for your affected source in § 63.1563.

* * * * *

(c) If you startup your new or reconstructed affected source on or after April 11, 2002, you must submit the initial notification no later than 120 days after you become subject to this subpart.

* * * * *

(f) As required by this subpart, you must prepare and implement an operation, maintenance, and monitoring plan for each control system and continuous monitoring system for each affected source. * * *

(2) Each plan must include, at a minimum, the information specified in paragraphs (f)(2)(i) through (xii) of this section.

* * * * *

(vi) Procedures you will use to determine the HCl concentration of gases from a catalytic reforming unit when you use a colormetric tube sampling system, including procedures for correcting for pressure (if applicable to the sampling equipment) and the sampling locations that will be used for compliance monitoring purposes.

* * * * *

(x) Maintenance schedule for each monitoring system and control device for each affected source that is generally consistent with the manufacturer's instructions for routine and long-term maintenance.

(xi) If you use a fixed-bed gas-solid adsorption system to control emissions from a catalytic reforming unit, you must implement corrective action procedures if the HCl concentration measured at the selected compliance monitoring sampling location within the bed exceeds the operating limit. These procedures must require, at minimum, repeat measurement and recording of the HCl concentration in the adsorption system exhaust gases and at the selected compliance monitoring sampling location within the bed. If the HCl concentration at the selected compliance monitoring location within the bed is above the operating limit during the repeat measurement while the HCl concentration in the adsorption system exhaust gases remains below the operating limit, the adsorption bed must be replaced as soon as practicable. Your procedures must specify the sampling frequency that will be used to monitor the HCl concentration in the adsorption system exhaust gases subsequent to the repeat measurement and prior to replacement of the sorbent material (but not less frequent than once every 4 hours during coke burn-off). If the HCl concentration of the adsorption system exhaust gases is above the operating limit when measured at any time, the adsorption bed must be replaced within 24 hours or before the next regeneration cycle, whichever is longer.

(xii) Procedures that will be used for purging the catalyst if you do not use a control device to comply with the organic HAP emission limits for catalytic reforming units. These procedures will include, but are not limited to, specification of the minimum

catalyst temperature and the minimum cumulative volume of gas per mass of catalyst used for purging prior to uncontrolled releases (i.e., during controlled purging events); the maximum purge gas temperature for uncontrolled purge events; and specification of the monitoring systems that will be used to monitor and record data during each purge event.

■ 9. Section 63.1576 is amended by revising paragraph (a)(2) to read as follows:

§ 63.1576 What records must I keep, in what form, and for how long?

(a) * * *

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

* * * * *

■ 10. Section 63.1579 is amended by:

■ a. Adding, in alphabetical order, new definitions for the terms ''Internal scrubbing system'' and ''Nonmethane TOC''; and

■ b. Revising the definition for the term ''TOC.''

The additions and revision read as follows:

§ 63.1579 What definitions apply to this subpart?

* * * * *

Internal scrubbing system means a wet scrubbing, wet injection, or caustic injection control device that treats (in-situ) the catalytic reforming unit recirculating coke burn exhaust gases for acid (HCl) control during reforming catalyst regeneration upstream of the atmospheric coke burn vent.

* * * * *

Nonmethane TOC means, for the purposes of this subpart, emissions of total organic compounds, excluding methane, that serve as a surrogate measure of the total emissions of organic HAP compounds including, but not limited to, acetaldehyde, benzene, hexane, phenol, toluene, and xylenes and nonHAP VOC as measured by Method 25 in appendix A to part 60 of this chapter, by the combination of Methods 18 and 25A in appendix A to part 60 of this chapter, or by an approved alternative method.

* * * * *

TOC means, for the purposes of this subpart, emissions of total organic compounds that serve as a surrogate measure of the total emissions of organic HAP compounds including, but not limited to, acetaldehyde, benzene, hexane, phenol, toluene, and xylenes and nonHAP VOC as measured by Method 25A in appendix A to part 60 of this chapter or by an approved alternative method.

* * * * *

■ 11. Tables 1 through 44 to subpart UUU of part 63 are amended to remove the phrase, ''you must'' and add in its place the phrase ''you shall'' in the introductory text and in the last column heading, where applicable (i.e., Tables 1 through 3, 6 through 10, 13 through 17, 20 through 24, 27 through 31, 34 through 37, 39, and 41 through 43).

■ 12. Table 1 to subpart UUU of part 63 is amended to revising entries 1 and 2 to read as follows:

TABLE 1 TO SUBPART UUU OF PART 63—METAL HAP EMISSION LIMITS FOR CATALYTIC CRACKING UNITS.

* * * * *

For each new or existing catalytic cracking unit . . .	You shall meet the following emission limits for each catalyst regenerator vent . . .
1. Subject to new source performance standard (NSPS) for PM in 40 CFR 60.102.	PM emissions must not the exceed 1.0 kilogram (kg) per 1,000 kg (1.0 lb/1,000 lb) of coke burn-off in the catalyst regenerator; if the discharged gases pass through an incinerator or waste heat boiler in which you burn auxiliary or in supplemental liquid or solid fossil fuel, the incremental rate of PM emissions must not exceed 43.0 grams per Gigajoule (g/GJ) or 0.10 pounds per million British thermal units (lb/million Btu) of heat input attributable to the liquid or solid fossil fuel; and the opacity of emissions must not exceed 30 percent, except for one 6-minute average opacity reading in any 1-hour period.
2. Option 1: NSPS requirements not subject to the NSPS for PM in 40 CFR 60.102.	PM emissions must not exceed 1.0 kg/1,000 kg (1.0 lb/1,000 lb) of coke burn-off in the catalyst regenerator; if the discharged gases pass through an incinerator or waste heat boiler in which you burn auxiliary or supplemental liquid or solid fossil fuel, the incremental rate of PM must not exceed 43.0 g/GJ (0.10 lb/million Btu) of heat input attributable to the liquid or solid fossil fuel; and the opacity of emissions must not exceed 30 percent, except for one 6-minute average opacity reading in any 1-hour period.
*	* * * * *

■ 13. Table 3 to subpart UUU of part 63 is revised to read as follows:

TABLE 3 TO SUBPART UUU OF PART 63.—CONTINUOUS MONITORING SYSTEMS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS

[As stated in § 63.1564(b)(1), you shall meet each requirement in the following table that applies to you.]

For each new or existing catalytic cracking unit . . .	If your catalytic cracking unit is . . .	And you use this type of control device for your vent . . .	You shall install, operate, and maintain a . . .
1. Subject to the NSPS for PM in 40 CFR 60.102.	Any size	Electrostatic precipitator or wet scrubber or no control device.	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent.

TABLE 3 TO SUBPART UUU OF PART 63.—CONTINUOUS MONITORING SYSTEMS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS—Continued

[As stated in § 63.1564(b)(1), you shall meet each requirement in the following table that applies to you.]

For each new or existing catalytic cracking unit . . .	If your catalytic cracking unit is . . .	And you use this type of control device for your vent . . .	You shall install, operate, and maintain a . . .
2. Option 1: NSPS limits not subject to the NSPS for PM in 40 CFR 60.102.	Any size	Electrostatic precipitator or wet scrubber or no control device.	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent.
3. Option 2: PM limit not subject to the NSPS for PM in 40 CFR 60.102.	a. Over 20,000 barrels per day fresh feed capacity.	Electrostatic precipitator	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent.
	b. Up to 20,000 barrels per day fresh feed capacity.	Electrostatic precipitator	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent; or continuous parameter monitoring systems to measure and record the gas flow rate entering or exiting the control device [1] and the voltage and secondary current (or total power input) to the control device.
	c. Any size	i. Wet scrubber	(1) Continuous parameter monitoring system to measure and record the pressure drop across the scrubber, gas flow rate entering or exiting the control device [1], and total liquid (or scrubbing liquor) flow rate to the control device. (2) If you use a wet scrubber of the non-venturi jet-ejector design, you're not required to install and operate a continuous parameter monitoring system for pressure drop.
	d. Any size	No electrostatic precipitator or wet scrubber.	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regnerator vent.
4. Option 3: Ni lb/hr not subject to the NSPS for PM in 40 CFR 60.102.	a. Over 20,000 barrels per day fresh feed capacity.	Electrostatic precipitator	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent and continuous parameter monitoring system to measure and record the gas flow rate entering or exiting the control device [1].
	b. Up to 20,000 barrels per day fresh feed capacity.	Electrostatic precipitator	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent and continuous parameter monitoring system to measure and record the gas flow rate entering or exiting the control device [1]; or continuous parameter monitoring systems to measure and record the gas flow rate entering or exiting the control device [1] and the voltage and secondary current (or total power input) to the control device.

TABLE 3 TO SUBPART UUU OF PART 63.—CONTINUOUS MONITORING SYSTEMS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS—Continued

[As stated in § 63.1564(b)(1), you shall meet each requirement in the following table that applies to you.]

For each new or existing catalytic cracking unit . . .	If your catalytic cracking unit is . . .	And you use this type of control device for your vent . . .	You shall install, operate, and maintain a . . .
	c. Any size	Wet scrubber	(1) Continuous parameter monitoring system to measure and record the pressure drop across the scrubber, gas flow rate entering or exiting the control device [1], and total liquid (or scrubbing liquor) flow rate to the control device. (2) If you use a wet scrubber of the non-venturi jet-ejector design, you're not required to install and operate a continuous parameter monitoring system for pressure drop.
	d. Any size	No electrostatic precipitator or wet scrubber.	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent and continuous parameter monitoring system to measure and record the gas flow rate [1].
5. Option 4: Ni lb/1,000 lbs of coke burn-off not subject to the NSPS for PM in 40 CFR 60.102.	a. Over 20,000 barrels per day fresh feed capacity.	Electrostatic precipitator	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent and continuous parameter monitoring system to measure and record the gas flow rate entering or exiting the control device [1].
	b. Up to 20,000 barrels per day fresh feed capacity.	Electrostatic precipitator	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent and continuous parameter monitoring system to measure and record the gas flow rate entering or exiting the control device [1]; or continuous parameter monitoring systems to measure and record the gas flow rate entering or exiting the control device [1] and the voltage and secondary current (or total power input) to the control device.
	c. Any size	Wet scrubber	Continuous parameter monitoring system to measure and record the pressure drop across the scrubber, gas flow rate entering or exiting the control device [1], and total liquid (or scrubbing liquor) flow rate to the control device.
	d. Any size	No electrostatic precipitator or wet scrubber.	Continuous opacity monitoring system to measure and record the opacity of emissions from each catalyst regenerator vent and continuous parameter monitoring system to measure and record the gas flow rate [1].

[1] If applicable, you can use the alternative in § 63.1573(a)(1) instead of a continuous parameter monitoring system for gas flow rate.

■ 14. Table 4 to subpart UUU of part 63 is amended by revising entries 2, 3, 4, and 5; revising footnote 1; and adding new footnote 2 to read as follows:

TABLE 4 TO SUBPART UUU OF PART 63—REQUIREMENTS FOR PERFORMANCE TESTS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS NOT SUBJECT TO THE NEW SOURCE PERFORMANCE STANDARDS (NSPS) FOR PARTICULATE MATTER (PM)

* * * * * * *

For each new or existing catalytic cracking unit catalyst regenerator vent . . .	You shall . . .	Using . . .	According to these requirements . . .
* *	* *	*	* *
2. Option 1: Elect NSPS	a. Measure PM emissions.	Method 5B or 5F (40 CFR part 60, appendix A) to determine PM emissions and associated moisture content for units without wet scrubbers. Method 5B (40 CFR part 60, appendix A) to determine PM emissions and associated moisture content for unit with wet scrubber.	You must maintain a sampling rate of at least 0.15 dry standard cubic meters per minute (dscm/min) (0.53 dry standard cubic feet per minute (dscf/min).
	b. Compute PM emission rate (lbs/1,000 lbs) of coke burn-off.	Equations 1, 2, and 3 of § 63.1564 (if applicable).	
	c. Measure opacity of emissions.	Continuous opacity monitoring system.	You must collect opacity monitoring data every 10 seconds during the entire period of the Method 5B or 5F performance test and reduce the data to 6-minute averages.
3. Option 2: PM limit	a. Measure PM emissions.	See item 2. of this table.	See item 2. of this table.
	b. Compute coke burn-off rate and PM emission rate.	Equations 1 and 2 of § 63.1564.	
	c. Establish your site-specific opacity operating limit if you use a continuous opacity monitoring system.	Data from the continuous opacity monitoring system.	You must collect opacity monitoring data every 10 seconds during the entire period of the Method 5B or 5F performance test and reduce the data to 6-minute averages; determine and record the hourly average opacity from all the 6-minute averages; and compute the site-specific limit using Equation 4 of § 63.1564.
4. Option 3: Ni lb/hr	a. Measure concentration of Ni and total metal HAP.	Method 29 (40 CFR part 60, appendix A).	
	b. Compute Ni emission rate (lb/hr).	Equation 5 of § 63.1564.	
	c. Determine the equilibrium catalyst Ni concentration.	XRF procedure in appendix A to this subpart[1]; or EPA Method 6010B or 6020 or EPA Method 7520 or 7521 in SW–846[2]; or an alternative to the SW-846 method satisfactory to the Administrator.	You must obtain 1 sample for each of the 3 runs; determine and record the equilibrium catalyst Ni concentration for each of the 3 samples; and you may adjust the laboratory results to the maximum value using Equation 2 of § 63.1571.
	d. If you use a continuous opacity monitoring system, establish your site-specific Ni operating limit.	i. Equations 6 and 7 of § 63.1564 using data from continuous opacity monitoring system, gas flow rate, results of equilibrium catalyst Ni concentration analysis, and Ni emission rate from Method 29 test.	(1) You must collect opacity monitoring data every 10 seconds during the entire period of the initial Ni performance test; reduce the data to 6-minute averages; and determine and record the hourly average opacity from all the 6-minute averages. (2) You must collect gas flow rate monitoring data every 15 minutes during the entire period of the initial Ni performance test; measure the gas flow as near as practical to the continuous opacity monitoring system; and determine and record the hourly average actual gas flow rate from all the readings.
5. Option 4: Ni lbs/1,000 lbs of coke burn-off.	a. Measure concentration of Ni and total HAP.	Method 29 (40 CFR part 60, appendix A).	

TABLE 4 TO SUBPART UUU OF PART 63—REQUIREMENTS FOR PERFORMANCE TESTS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS NOT SUBJECT TO THE NEW SOURCE PERFORMANCE STANDARDS (NSPS) FOR PARTICULATE MATTER (PM)—Continued

* * * * * * *

For each new or existing catalytic cracking unit catalyst regenerator vent . . .	You shall . . .	Using . . .	According to these requirements . . .
	b. Compute Ni emission rate (lb/1,000 lbs of coke burn-off).	Equations 1 and 8 of § 63.1564.	
	c. Determine the equilibrium catalyst Ni concentration.	See item 4.c. of this table.	You must obtain 1 sample for each of the 3 runs; determine and record the equilibrium catalyst Ni concentration for each of the 3 samples; and you may adjust the laboratory results to the maximum value using Equation 2 of § 63.1571.
	d. If you use a continuous opacity monitoring system, establish your site-specific Ni operating limit.	i. Equations 9 and 10 of § 63.1564 with data from continuous opacity monitoring system, coke burn-off rate, results of equilibrium catalyst Ni concentration analysis, and Ni emission rate from Method 29 test.	(1) You must collect opacity monitoring data every 10 seconds during the entire period of the initial Ni performance test; reduce the data to 6-minute averages; and determine and record the hourly average opacity from all the 6-minute averages. (2) You must collect gas flow rate monitoring data every 15 minutes during the entire period of the initial Ni performance test; measure the gas flow rate as near as practical to the continuous opacity monitoring system; and determine and record the hourly average actual gas flow rate from all the readings.
	e. Record the catalyst addition rate for each test and schedule for the 10- day period prior to the test.		
*	*	*	*	*	*

[1] Determination of Metal Concentration on Catalyst Particles (Instrumental Analyzer Procedure).

[2] EPA Method 6010B, Inductively Coupled Plasma-Atomic Emission Spectrometry, EPA Method 6020, Inductively Coupled Plasma-Mass Spectrometry, EPA Method 7520, Nickel Atomic Absorption, Direct Aspiration, and EPA Method 7521, Nickel Atomic Absorption, Direct Aspiration are included in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, Revision 5 (April 1998). The SW–846 and Updates (document number 955–001–00000–1) are available for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512–1800; and from the National Technical Information Services (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 487–4650. Copies may be inspected at the EPA Docket Center (Air Docket), EPA West, Room B–108, 1301 Constitution Ave., NW., Washington, DC; or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

■ 15. Table 5 to subpart UUU of part 63 is amended by revising entries 1, 2, and 3 to read as follows:

TABLE 5 TO SUBPART UUU OF PART 63.—INITIAL-COMPLIANCE WITH METAL HAP EMISSION LIMITS FOR CATALYTIC CRACKING UNITS

* * * * *

For each new and existing catalytic cracking unit catalyst regenerator vent . . .	For the following emission limit . . .	You have demonstrated initial compliance if . . .
1. Subject to the NSPS for PM in 40 CFR 60.102.	PM emissions must not exceed 1.0 kg/1,000 kg (1.0 lb/1,000 lb) of coke burn-off in the catalyst regenerator; if the discharged gases pass through an incinerator or waste heat boiler in which you burn auxiliary or supplemental liquid or solid fossil fuel, the incremental rate of PM must not exceed 43.0 grams per Gigajoule (g/GJ) or 0.10 pounds per million British thermal units (lb/million Btu) of heat input attributable to the liquid or solid fossil fuel; and the opacity of emissions must not exceed 30 percent, except for one 6-minute average opacity reading in any 1-hour period.	You have already conducted a performance test to demonstrate initial compliance with the NSPS and the measured PM emission rate is less than or equal to 1.0 kg/1,000 kg (1.0 lb/1,000 lb) of coke burn-off in the catalyst regenerator. As part of the Notification of Compliance Status, you must certify that your vent meets the PM limit. You are not required to do another performance test to demonstrate initial compliance. If applicable, you have already conducted a performance test to demonstrate initial compliance with the NSPS and the measured PM rate is less than or equal to 43.0 g/GJ (0.10 lb/million Btu) of heat input attributable to the liquid or solid fossil fuel. As part of the Notification of Compliance Status, you must certify that your vent meets the PM emission limit. You are not required to do another performance test to demonstrate initial compliance. You have already conducted a performance test to demonstrate initial compliance with the NSPS and the average hourly opacity is no more than 30 percent. Except: One 6-minute average in any 1-hour period can exceed 30 percent. As part of the Notification of Compliance Status, you must certify that your vent meets the opacity limit. You are not required to do another performance test to demonstrate initial compliance. You have already conducted a performance evaluation to demonstrate initial compliance with the applicable performance specification. As part of your Notification of Compliance Status, you certify that your continuous opacity monitoring system meets the requirements in § 63.1572. You are not required to do a performance evaluation to demonstrate initial compliance.
2. Option 1: Elect NSPS not subject to the NSPS for PM.	PM emission must not exceed 1.0 kg/1,000 kg (1.0 lb/1,000 lb) of coke burn-off in the catalyst regenerator; if the discharged gases pass through an incinerator or waste heat boiler in which you burn auxiliary or supplemental liquid or solid fossil fuel, the incremental rate of PM must not exceed 43.0 g/GJ (0.10 lb/million Btu) of heat input attributable to the liquid or solid fossil fuel; and the opacity of emissions must not exceed 30 percent, except for one 6-minute average opacity reading in any 1-hour period.	The average PM emission rate, measured using EPA Method 5B or 5F (for a unit without a wet scrubber) or 5B (for a unit with a wet scrubber), over the period of the initial performance test, is no higher than 1.0 kg/1,000 kg (1.0 lb/1,000 lb of coke burn-off in the catalyst regenerator. The PM emission rate is calculated using Equations 1 and 2 of § 63.1564. If applicable, the average PM emission rate, measured using EPA Method 5B emission rate, measured using EPA Method 5B or 5F (for a unit without a wet scrubber) or Method 5B (for a unit with a wet scrubber) over the period of the initial performance test, is no higher than 43.0 g/GJ (0.10 lb/million Btu) of heat input attributable to the liquid or solid fossil fuel. The PM emission rate is calculated using Equation 3 of § 63.1564; no more than one 6-minute average measured by the continuous opacity monitoring system exceeds 30 percent opacity in any 1-hour period over the period of the performance test; and your performance evaluation shows the continuous opacity monitoring system meets the applicable requirements in § 63.1572.
3. Option 2: Not subject to the NSPS for PM.	PM emissions must not exceed 1.0 kg/1,000 kg (1.0 lb/1,000 lb) of coke burn-off in the catalyst regenerator.	The average PM emission rate, measured using EPA Method 5B or 5F (for a unit without a wet scrubber) or Method 5B (for a unit with a wet scrubber), over the period of the initial performance test, is less than or equal to 1.0 kg/1,000 kg (1.0 lb/1,000 lb) of coke burn-off in the catalyst regenerator. The PM emission rate is calculated using Equations 1 and 2 of § 63.1564; and if you use a continuous opacity monitoring system, your performance evaluation shows the system meets the applicable requirements in § 63.1572.

TABLE 5 TO SUBPART UUU OF PART 63.—INITIAL-COMPLIANCE WITH METAL HAP EMISSION LIMITS FOR CATALYTIC CRACKING UNITS—Continued

* * * * *

For each new and existing catalytic cracking unit catalyst regenerator vent . . .	For the following emission limit . . .	You have demonstrated initial compliance if . . .
*	*	*

■ 16. Table 6 to subpart UUU of part 63 is amended by revising entries 1, 3, and 5 to read as follows:

TABLE 6 TO SUBPART UUU OF PART 63—CONTINUOUS COMPLIANCE WITH METAL HAP EMISSION LIMITS FOR CATALYTIC CRACKING UNITS

* * * * *

For each new and existing catalytic cracking unit . . .	Subject to this emission limit for your catalyst regenerator vent . . .	You shall demonstrate continuous compliance by . . .
1. Subject to the NSPS for PM in 40 CFR 60.102.	a. PM emissions must not exceed 1.0 kg/1,000 kg (1.0 lb/1,000 lb) of coke burn-off in the catalyst regenerator; if the discharged gases pass through an incinerator or waste heat boiler in which you burn auxiliary or supplemental liquid or solid fossil fuel, the incremental rate of PM must not exceed 43.0 g/GJ (0.10 lb/million Btu) of heat input attributable to the liquid or solid fossil fuel; and the opacity of emissions must not exceed 30 percent, except for one 6-minute average opacity reading in any 1-hour period.	i. Determining and recording each day the average coke burn-off rate (thousands of kilograms per hour) using Equation 1 in § 63.1564 and the hours of operation for each catalyst regenerator; maintaining PM emission rate below 1.0 kg/1,000 kg (1.0 lb/1,000 lbs) of coke burn-off; if applicable, determining and recording each day the rate of combustion of liquid or solid fossil fuels (liters/hour or kilograms/hour) and the hours of operation during which liquid or solid fossil-fuels are combusted in the incinerator-waste heat boiler; if applicable, maintaining the PM rate incinerator below 43 g/GJ (0.10 lb/million Btu) of heat input attributable to the solid or liquid fossil fuel; collecting the continuous opacity monitoring data for each catalyst regenerator vent according to § 63.1572; and maintaining each 6-minute average at or below 30 percent except that one 6-minute average during a 1-hour period can exceed 30 percent.
*	*	*
3. Option 2: PM limit not subject to the NSPS for PM.	PM emissions must not exceed 1.0 kg/1,000 kg (1.0 lb/1,000 lb) of coke burn-off in the catalyst regenerator.	Determining and recording each day the average coke burn-off rate (thousands of kilograms per hour) and the hours of operation for each catalyst regenerator by Equation 1 of § 63.1564 (you can use process data to determine the volumetric flow rate); and maintaining the PM emission rate below 1.0 kg/1,000 kg (1.0 lb/1,000 lb) of coke burn-off.
*	*	*
5. Option 4: Ni lb/1,000 lbs of coke burn-off not subject to the NSPS for PM.	Ni emissions must not exceed 1.0 mg/kg (0.001 lb/1,000 lbs) of coke burn-off in the catalyst regenerator.	Determining and recording each day the average coke burn-off rate (thousands of kilograms per hour) and the hours of operation for each catalyst regenerator by Equation 1 of § 63.1564 (you can use process data to determine the volumetric flow rate); and maintaining Ni emission rate below 1.0 mg/kg (0.001 lb/1,000 lbs) of coke burn-off in the catalyst regenerator.

■ 17. Table 7 to subpart UUU of part 63 is revised to read as follows:

TABLE 7 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS

[As stated in § 63.1564(c)(1), you shall meet each requirement in the following table that applies to you.]

For each new or existing catalytic cracking unit . . .	If you use . . .	For this operating limit . . .	You shall demonstrate continuous compliance by . . .
1. Subject to NSPS for PM in 40 CFR 60.102.	Continuous opacity monitoring system.	Not applicable.	Complying with Table 6 of this subpart.
2. Option 1: Elect NSPS not subject to the NSPS for PM in 40 CFR 60.102.	Continuous opacity monitoring system.	Not applicable.	Complying with Table 6 of this subpart.
3. Option 2: PM limit not subject to the NSPS for PM in 40 CFR 60.102.	a. Continuous opacity monitoring system.	The opacity of emissions from your catalyst regenerator vent must not exceed the site-specific opacity operating limit established during the performance test.	Collecting the hourly average continuous opacity monitoring system data according to § 63.1572; and maintaining the hourly average opacity at or below the site-specific limit.
	b. Continuous parameter monitoring systems—electrostatic precipitator.	i. The daily average gas flow rate entering or exiting the control device must not exceed the operating limit established during the performance test.	Collecting the hourly and daily average gas flow rate monitoring data according to § 63.1572 [1]; and maintaining the daily average gas flow rate at or below the limit established during the performance test.
		ii. The daily average voltage and secondary current (or total power input) to the control device must not fall below the operating limit established during the performance test.	Collecting the hourly and daily average voltage and secondary current (or total power input) monitoring data according to § 63.1572; and maintaining the daily average voltage and secondary current (or total power input) at or above the limit established during the performance test.
	c. Continuous parameter monitoring systems—wet scrubber.	i. The daily average pressure drop across the scrubber must not fall below the operating limit established during the performance test.	Collecting the hourly and daily average pressure drop monitoring data according to § 63.1572; and maintaining the daily average pressure drop above the limit established during the performance test.
		ii. The daily average liquid-to-gas ratio must not fall below the operating limit established during the performance test.	Collecting the hourly average gas flow rate and water (or scrubbing liquid) flow rate monitoring data according to § 63.1572 [1]; determining and recording the hourly average liquid-to-gas ratio; determining and recording the daily average liquid-to-gas ratio; and maintaining the daily average liquid-to-gas ratio above the limit established during the performance test.
4. Option 3: Ni lb/hr not subject to the NSPS for PM in 40 CFR 60.102.	a. Continuous opacity monitoring system.	The daily average Ni operating value must not exceed the site-specific Ni operating limit established during the performance test.	Collecting the hourly average continuous opacity monitoring system data according to § 63.1572; determining and recording equilibrium catalyst Ni concentration at least once a week [2]; collecting the hourly average gas flow rate monitoring data according to § 63.1572 [1]; determining and recording the hourly average Ni operating value using Equation 11 of § 63.1564; determining and recording the daily average Ni operating value; and maintaining the daily average Ni operating value below the site-specific Ni operating limit established during the performance test.

TABLE 7 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS—Continued

[As stated in § 63.1564(c)(1), you shall meet each requirement in the following table that applies to you.]

For each new or existing catalytic cracking unit . . .	If you use . . .	For this operating limit . . .	You shall demonstrate continuous compliance by . . .
	b. Continuous parameter monitoring systems—electrostatic precipitator.	i. The daily average gas flow rate entering or exiting the control device must not exceed the operating limit established during the performance test.	See item 3.b.i. of this table.
		ii. The daily average voltage and secondary current (or total power input) must not fall below the level established in the performance test.	See item 3.b.ii. of this table.
		iii. The monthly rolling average of the equilibrium catalyst Ni concentration must not exceed the level established during the performance test.	Determining and recording the equilibrium catalyst Ni concentration at least once a week [2]; determining and recording the monthly rolling average of the equilibrium catalyst Ni concentration once each week using the weekly or most recent value; and maintaining the monthly rolling average below the limit established in the performance test.
	c. Continuous parameter monitoring systems—wetscrubber.	i. The daily average pressure drop must not fall below the operating limit established in the performance test.	See item 3.c.i. of this table.
		ii. The daily average liquid-to-gas ratio must not fall below the operating limit established during the performance test.	See item 3.c.ii. of this table.
		iii. The monthly rolling average equilibrium catalyst Ni concentration must not exceed the level established during the performance test.	Determining and recording the equilibrium catalyst Ni concentration at least once a week[2]; determining and recording the monthly rolling average of equilibrium catalyst Ni concentration once each week using the weekly or most recent value; and maintaining the monthly rolling average below the limit established in the performance test.
5. Option 4: Ni lb/ton of coke burn-off not subject to the NSPS for PM in 40 CFR 60.102.	a. Continuous opacity monitoring system.	The daily average Ni operating value must not exceed the site-specific Ni operating limit established during the performance test.	Collecting the hourly average continuous opacity monitoring system data according to § 63.1572; collecting the hourly average gas flow rate monitoring data according to § 63.1572 [1]; determining and recording equilibrium catalyst Ni concentration at least once a week [2]; determining and recording the hourly average Ni operating value using Equation 12 of § 63.1564; determining and recording the daily average Ni operating value; and maintaining the daily average Ni operating value below the site-specific Ni operating limit established during the performance test.
	b. Continuous parameter monitoring systems—electrostatic precipitator.	i. The daily average gas flow rate to the control device must not exceed the level established in the performance test.	See item 3.b.i. of this table.

TABLE 7 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS FOR METAL HAP EMISSIONS FROM CATALYTIC CRACKING UNITS—Continued

[As stated in § 63.1564(c)(1), you shall meet each requirement in the following table that applies to you.]

For each new or existing catalytic cracking unit . . .	If you use . . .	For this operating limit . . .	You shall demonstrate continuous compliance by . . .
		ii. The daily average voltage and secondary current (or total power input) must not fall below the level established in the performance test.	See item 3.b.ii. of this table.
		iii. The monthly rolling average equilibrium catalyst Ni concentration must not exceed the level established during the performance test.	See item 4.b.iii. of this table.
	c. Continuous parameter monitoring systems—wet scrubber.	i. The daily average pressure drop must not fall below the operating limit established in the performance test.	See item 3.c.i. of this table.
		ii. The daily average liquid-to-gas ratio must not fall below the operating limit established during the performance test.	See item 3.c.ii. of this table.
		iii. The monthly rolling average equilibrium catalyst Ni concentration must not exceed the level established during the performance test.	See item 4.c.iii. of this table.

[1] If applicable, you can use the alternative in § 63.1573(a)(1) for gas flow rate instead of a continuous parameter monitoring system if you used the alternative method in the initial performance test.

[2] The equilibrium catalyst Ni concentration must be measured by the procedure, Determination of Metal Concentration on Catalyst Particles (Instrumental Analyzer Procedure) in appendix A to this subpart; or by EPA Method 6010B, Inductively Coupled Plasma-Atomic Emission Spectrometry, EPA Method 6020, Inductively Coupled Plasma-Mass Spectrometry, EPA Method 7520, Nickel Atomic Absorption, Direct Aspiration, or EPA Method 7521, Nickel Atomic Absorption, Direct Aspiration; or by an alternative to EPA Method 6010B, 6020, 7520, or 7521 satisfactory to the Administrator. The EPA Methods 6010B, 6020, 7520, and 7521 are included in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, Revision 5 (April 1998). The SW–846 and Updates (document number 955–001–00000–1) are available for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512–1800; and from the National Technical Information Services (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 487–4650. Copies may be inspected at the EPA Docket Center (Air Docket), EPA West, Room B–108, 1301 Constitution Ave., NW., Washington, DC; or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC. These methods are also available at *http://www.epa.gov/epaoswer/hazwaste/test/main.htm.*

■ 18. Table 15 to subpart UUU of part 63 is amended by revising the heading in column 1 and 2 and by revising entry 2 as follows:

TABLE 15 TO SUBPART UUU OF PART 63.—ORGANIC HAP EMISSION LIMITS FOR CATALYTIC REFORMING UNITS

* * * * *

For each applicable process vent for a new or existing catalytic reforming unit . . .	You shall meet this emission limit during initial catalyst depressuring and catalyst purging operations . . .
* * * *	* * *
2. Option 2	Reduce uncontrolled emissions of total organic compounds (TOC) or nonmethane TOC from your process vent by 98 percent by weight using a control device or to a concentration of 20 ppmv (dry basis as hexane), corrected to 3 percent oxygen, whichever is less stringent. If you vent emissions to a boiler or process heater to comply with the percent reduction or concentration emission limitation, the vent stream must be introduced into the flame zone, or any other location that will achieve the percent reduction or concentration standard.

■ 19. Table 16 to subpart UUU of part 63 is amended by revising the heading in column 3 and by revising entry 2 as follows:

TABLE 16 TO SUBPART UUU OF PART 63.—OPERATING LIMITS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS

* * * * *

For each new or existing catalytic reforming unit . . .	For this type of control device . . .	You shall meet this operating limit during initial catalyst depressuring and purging operations . . .
*	*	*
2. Option 2: Percent reduction or concentration limit.	a. Thermal incinerator, boiler or process heater with a design heat input capacity under 44 MW, or boiler or process heater in which all vent streams are not introduced into the flame zone.	The daily average combustion zone temperature must not fall below the limit established during the performance test.
	b. No control device	Operate at all times according to your operation, maintenance, and monitoring plan regarding minimum catalyst purging conditions that must be met prior to allowing uncontrolled purge releases.

■ 20. Table 17 to subpart UUU of part 63 is amended by revising the heading in column 1 as follows:

TABLE 17 TO SUBPART UUU OF PART 63.–CONTINUOUS MONITORING SYSTEMS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS

* * * * * * *

For each applicable process vent for a new or existing catalytic reforming unit . . .	If you use this type of control device . . .	You shall install and operate this type of continuous monitoring system . . .
*	*	*

■ 21. Table 18 to subpart UUU of part 63 is amended by revising entry 1 and 2 as follows:

TABLE 18 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS

* * * * * * *

For each new or existing catalytic reforming unit . . .	You shall . . .	Using . . .	According to these requirements . . .
1. Option 1: Vent to a flare	a. Conduct visible emission observations.	Method 22 (40 CFR part 60, appendix A).	2-hour observation period. Record the presence of a flame at the pilot light over the full period of the test.
	b. Determine that the flare meets the requirements for net heating value of the gas being combusted and exit velocity.	Not applicable.	40 CFR 63.11(b)(6) through (8).
2. Option 2: Percent reduction or concentration limit.	a. Select sampling site	Method 1 or 1A (40 CFR part 60, appendix A). No traverse site selection method is needed for vents smaller than 0.10 meter in diameter.	Sampling sites must be located at the inlet (if you elect the emission reduction standard) and outlet of the control device and prior to any releases to the atmosphere.
	b. Measure gas volumetric flow rate.	Method 2, 2A, 2C, 2D, 2F, or 2G (40 CFR part 60, appendix A), as applicable.	

TABLE 18 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS—Continued

* * * * * * *

For each new or existing catalytic reforming unit . . .	You shall . . .	Using . . .	According to these requirements . . .
	c. Measure TOC concentration (for percent reduction standard).	Method 25 (40 part 60, appendix A) to measure nonmethane TOC concentration (in carbon equivalents) at inlet and outlet of the control device. If the nonmethane TOC outlet concentration is expected to be less than 50 ppm (as carbon), you can use Method 25A to measure TOC concentration (as hexane) at the inlet and the outlet of the control device. If you use Method 25A, you may use Method 18 (40 CFR part 60, appendix A) to measure the methane concentration to determine the nonmethane TOC concentration.	Take either an integrated sample or four grab samples during each run. If you use a grab sampling technique, take the samples at approximately equal intervals in time, such as 15-minute intervals during the run.
	d. Calculate TOC or nonmethane TOC emission rate and mass emission reduction.	.....	Calculate emission rate by Equation 1 of § 63.1566 (if you use Method 25) or Equation 2 of § 63.1566 (if you use Method 25A). Calculate mass emission reduction by Equation 3 of § 63.1566.
	e. For concentration standard, measure TOC concentration. (Optional: Measure methane concentration.)	Method 25A (40 CFR part 60, appendix A) to measure TOC concentration (as hexane) at the outlet of the control device. You may elect to use Method 18 (40 CFR part 60, appendix A) to measure the methane concentration.	
	f. Determine oxygen content in the gas stream at the outlet of the control device.	Method 3A or 3B (40 CFR part 60, appendix A), as applicable.	
	g. Calculate the TOC or nonmethane TOC concentration corrected for oxygen content (for concentration standard).	Equation 4 of § 63.1566.	
	h. Establish each operating limit in Table 16 of this subpart that applies to you for a thermal incinerator, or process heater or boiler with a design heat input capacity under 44 MW, or process heater or boiler in which all vent streams are not introduced into flame zone.	Data from the continuous parameter monitoring systems.	Collect the temperature monitoring data every 15 minutes during the entire period of the initial TOC performance test. Determine and record the minimum hourly average combustion zone temperature.
	i. If you do not use a control device, document the purging conditions used prior to testing following the minimum requirements in the operation, maintenance, and monitoring plan.	Data from monitoring systems as identified in the operation, maintenance, and monitoring plan.	Procedures in the operation, maintenance, and monitoring plan.

■ 22. Table 19 to subpart UUU of part 63 is revised as follows:

TABLE 19 TO SUBPART UUU OF PART 63.—INITIAL COMPLIANCE WITH ORGANIC HAP EMISSION LIMITS FOR CATALYTIC REFORMING UNITS

[As stated in § 63.1566(b)(7), you shall meet each requirement in the following table that applies to you.]

For each applicable process vent for a new or existing catalytic reforming unit . . .	For the following emission limit . . .	You have demonstrated initial compliance if . . .
Option 1	Visible emissions from a flare must not exceed a total of 5 minutes during any 2 consecutive hours.	Visible emissions, measured using Method 22 over the 2-hour observation period of the performance test, do not exceed a total of 5 minutes.
Option 2	Reduce uncontrolled emissions of total organic compounds (TOC) or nonmethane TOC from your process vent by 98 percent by weight using a control device or to a concentration of 20 ppmv (dry basis as hexane), corrected to 3 percent oxygen, whichever is less stringent.	The mass emission reduction of nonmethane TOC measured by Method 25 over the period of the performance test is at least 98 percent by weight as calculated using Equations 1 and 3 of § 63.1566; or the mass emission reduction of TOC measured by Method 25A (or nonmethane TOC measured by Methods 25A and 18) over the period of the performance test is at least 98 percent by weight as calculated using Equations 2 and 3 of § 63.1566; or the TOC concentration measured by Method 25A (or the nonmethane TOC concentration measured by Methods 25A and 18) over the period of the performance test does not exceed 20 ppmv (dry basis as hexane) corrected to 3 percent oxygen as calculated using Equation 4 of § 63.1566.

■ 23. Table 20 to subpart UUU of part 63 is revised as follows:

TABLE 20 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH ORGANIC HAP EMISSION LIMITS FOR CATALYTIC REFORMING UNITS

[As stated in § 63.1566(c)(1), you shall meet each requirement in the following table that applies to you.]

For each applicable process vent for a new or existing catalytic reforming unit . . .	For this emission limit . . .	You shall demonstrate continuous compliance during initial catalyst depressuring and catalyst purging operations by . . .
1. Option 1	Vent emissions from your process vent to a flare that meets the requirements in § 63.11(b).	Maintaining visible emissions from a flare below a total of 5 minutes during any 2 consecutive hours.
2. Option 2	Reduce uncontrolled emissions of total organic compounds (TOC) or nonmethane TOC from your process vent by 98 percent by weight using a control device or to a concentration of 20 ppmv (dry basis as hexane), corrected to 3 percent oxygen, whichever is less stringent.	Maintaining a 98 percent by weight emission reduction of TOC or nonmethane TOC; or maintaining a TOC or nonmethane TOC concentration of not more than 20 ppmv (dry basis as hexane), corrected to 3 percent oxygen, whichever is less stringent.

■ 24. Table 21 to Subpart UUU of part 63 is revised as follows:

TABLE 21 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS

[As stated in § 63.1566(c)(1), you shall meet each requirement in the following table that applies to you.]

For each applicable process vent for a new or existing catalytic reforming unit . . .	If you use . . .	For this operating limit . . .	You shall demonstrate continuous compliance during initial catalyst depressuring and purging operations by . . .
1. Option 1	Flare that meets the requirements in § 63.11(b).	The flare pilot light must be present at all times and the flare must be operating at all times that emissions may be vented to it.	Collecting flare monitoring data according to § 63.1572; and recording for each 1-hour period whether the monitor was continuously operating and the pilot light was continuously present during each 1-hour period.

TABLE 21 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS FOR ORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS—Continued

[As stated in § 63.1566(c)(1), you shall meet each requirement in the following table that applies to you.]

For each applicable process vent for a new or existing catalytic reforming unit . . .	If you use . . .	For this operating limit . . .	You shall demonstrate continuous compliance during initial catalyst depressuring and purging operations by . . .
2. Option 2	a. Thermal incinerator boiler or process heater with a design input capacity under 44 MW or boiler or process heater in which not all vent streams are not introduced into the flame zone.	Maintain the daily average combustion zone temperature above the limit established during the performance test.	Collecting, the hourly and daily temperature monitoring data according to § 63.1572; and maintaining the daily average combustion zone temperature above the limit established during the performance test.
	b. No control device	Operate at all times according to your operation, maintenance, and monitoring plan regarding minimum purging conditions that must be met prior to allowing uncontrolled purge releases.	Recording information to document compliance with the procedures in your operation, maintenance, and monitoring plan.

■ 25. Table 22 to subpart UUU of part 63 is revised as follows:

TABLE 22 TO SUBPART UUU OF PART 63.—INORGANIC HAP EMISSION LIMITS FOR CATALYTIC REFORMING UNITS

[As stated in § 63.1567(a)(1), you shall meet each emission limitation in the following table that applies to you.]

For . . .	You shall meet this emission limit for each applicable catalytic reforming unit process vent during coke burn-off and catalyst rejuvenation . . .
1. Each existing semi-regenerative catalytic reforming unit	Reduce uncontrolled emissions of hydrogen chloride (HCl) by 92 percent by weight or to a concentration of 30 ppmv (dry basis), corrected to 3 percent oxygen.
2. Each existing cyclic or continous catalytic reforming unit	Reduce uncontrolled emissions of HCl by 97 percent by weight or to a concentration of 10 ppmv (dry basis), corrected to 3 percent oxygen.
3. Each new semi-regenerative, cyclic, or continous catalytic reforming unit.	Reduce uncontrolled emissions of HCl by 97 percent by weight or to a concentration of 10 ppmv (dry basis), corrected to 3 percent oxygen.

■ 26. Table 23 to subpart UUU of part 63 is revised as follows:

TABLE 23 TO SUBPART UUU OF PART 63.—OPERATING LIMITS FOR INORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS

[As stated in § 63.1567(a)(2), you shall meet each operating limit in the following table that applies to you.]

For each applicable process vent for a new or existing catalytic reforming unit with this type of control device . . .	You shall meet this operating limit during coke burn-off and catalyst rejuvenation . . .
1. Wet scrubber	The daily average pH or alkalinity of the water (or scrubbing liquid) exiting the scrubber must not fall below the limit established during the performance test; and the daily average liquid-to-gas ratio must not fall below the limit established during the performance test.
2. Internal scrubbing system or no control device (*e.g.*, hot regen system) meeting outlet HCl concentration limit.	The daily average HCl concentration in the catalyst regenerator exhaust gas must not exceed the limit established during the performance test.
3. Internal scrubbing system meeting HCl percent reduction standard.	The daily average pH or alkalinity of the water (or scrubbing liquid) exiting the internal scrubbing system must not fall below the limit established during the performance test; and the daily average liquid-to-gas ratio must not fall below the limit established during the performance test.
4. Fixed-bed gas-solid adsorption system	The daily average temperature of the gas entering or exiting the adsorption system must not exceed the limit established during the performance test; and the HCl concentration in the adsorption system exhaust gas must not exceed the limit established during the performance test.

TABLE 23 TO SUBPART UUU OF PART 63.—OPERATING LIMITS FOR INORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS—Continued

[As stated in § 63.1567(a)(2), you shall meet each operating limit in the following table that applies to you.]

For each applicable process vent for a new or existing catalytic reforming unit with this type of control device . . .	You shall meet this operating limit during coke burn-off and catalyst rejuvenation . . .
5. Moving-bed gas-solid adsorption system (*e.g.*, Chlorsorb™ System).	The daily average temperature of the gas entering or exiting the adsorption system must not exceed the limit established during the performance test; and the weekly average chloride level on the sorbent entering the adsorption system must not exceed the design or manufacturer's recommended limit (1.35 weight percent for the Chlorsorb™ System); and the weekly average chloride level on the sorbent leaving the adsorption system must not exceed the design or manufacturer's recommended limit (1.8 weight percent for the Chlorsorb™ System).

■ 27. Table 24 to subpart UUU of part 63 is revised as follows:

TABLE 24 TO SUBPART UUU OF PART 63.—CONTINUOUS MONITORING SYSTEMS FOR INORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS

[As stated in § 63.1567(b)(1), you shall meet each requirement in the following table that applies to you.]

If you use this type of control device for your vent . . .	You shall install and operate this type of continuous monitoring system . . .
1. Wet scrubber	Continuous parameter monitoring system to measure and record the total water (or scrubbing liquid) flow rate entering the scrubber during coke burn-off and catalyst rejuvenation; and continuous parameter monitoring system to measure and record gas flow rate entering or exiting the scrubber during coke burn-off and catalyst rejuvenation [1]; and continuous parameter monitoring system to measure and record the pH or alkalinity of the water (or scrubbing liquid) exiting the scrubber during coke burn-off and catalyst rejuvenation. [2]
2. Internal scrubbing system or no control device (e.g., hot regen system) to meet HC1 outlet concentration limit.	Colormetric tube sampling system to measure the HC1 concentration in the catalyst regenerator exhaust gas during coke burn-off and catalyst rejuvenation. The colormetric tube sampling system must meet the requirements in Table 41 of this subpart.
3. Internal scrubbing system to meet HC1 percent reduction standard	Continuous parameter monitoring system to measure and record the gas flow rate entering or exiting the internal scrubbing system during coke burn-off and catalyst rejuvenation; and continuous parameter monitoring system to measure and record the total water (or scrubbing liquid) flow rate entering the internal scrubbing system during coke burn-off and catalyst rejuvenation; and continuous parameter monitoring system to measure and record the pH or alkalinity of the water (or scrubbing liquid) exiting the internal scrubbing system during coke burn-off and catalyst rejuvenation. [2]
4. Fixed-bed gas-solid adsorption system	Continuous parameter monitoring system to measure and record the temperature of the gas entering or exiting the adsorption system during coke burn-off and catalyst rejuvenation; and colormetric tube sampling system to measure the gaseous HC1 concentration in the adsorption system exhaust and at a point within the absorbent bed not to exceed 90 percent of the total length of the absorbent bed during coke burn-off and catalyst rejuvenation. The colormetric tube sampling system must meet the requirements in Table 41 of this subpart.
5. Moving-bed gas-solid adsorption system (e.g., Chlorsorb™ System).	Continuous parameter monitoring system to measure and record the temperature of the gas entering or exiting the adsorption system during coke burn-off and catalyst rejuvenation.

[1] If applicable, you can use the alternative in § 63.1573 (a)(1) instead of a continuous parameter monitoring system for gas flow rate or instead of a continuous parameter monitoring system for the cumulative volume of gas.

[2] If applicable, you can use the alternative in § 63.1573(b)(1) instead of a continuous parameter monitoring system for pH of the water (or scrubbing liquid) or the alternative in § 63.1573(b)(2) instead of a continuous parameter monitoring system for alkalinity of the water (or scrubbing liquid).

■ 28. Table 25 to subpart UUU of part 63 is revised as follows:

TABLE 25 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR INORGANIC HAP EMISSIONS FOR CATALYTIC REFORMING UNITS

[As stated in § 63.1567(b)(2) and (3), you shall meet each requirement in the following table that applies to you.]

For each new and existing catalytic reforming unit using . . .	You shall . . .	Using . . .	According to these requirements . . .
1. Any or no control system	a. Select sampling port location(s) and the number of traverse points.	Method 1 or 1A (40 CFR part 60, appendix A), as applicable.	(1) If you operate a control device and you elect to meet an applicable HCl percent reduction standard, sampling sites must be located at the inlet of the control device or internal scrubbing system and at the outlet of the control device or internal scrubber system prior to any release to the atmosphere. For a series of fixed-bed systems, the outlet sampling site should be located at the outlet of the first fixed-bed, prior to entering the second fixed-bed in the series. (2) If you elect to meet an applicable HCl outlet concentration limit, locate sampling sites at the outlet of the control device or internal scrubber system prior to any release to the atmosphere. For a series of fixed-bed systems, the outlet sampling site should be located at the outlet of the first fixed-bed, prior to entering the second fixed-bed in the series. If there is no control device, locate sampling sites at the outlet of the catalyst regenerator prior to any release to the atmosphere.
	b. Determine velocity and volumetric flow rate.	Method 2, 2A, 2C, 2D, 2F, or 2G (40 CFR part 60, appendix A), as applicable..	
	c. Conduct gas molecular weight analysis.	Method 3, 3A, or 3B (40 CFR part 60, appendix A), as applicable.	
	d. Measure moisture content of the stack gas.	Method 4 (40 CFR part 60, appendix A).	
	e. Measure the HCl concentration at the selected sampling locations.	Method 26 or 26A (40 CFR part 60, appendix A). If your control device is a wet scrubber or internal scrubbing system, you must use Method 26A.	(1) For semi-regenerative and cyclic regeneration units, conduct the test during the coke burn-off and catalyst rejuvenation cycle, but collect no samples during the first hour or the last 6 hours of the cycle (for semi- regenerative units) or during the first hour or the last 2 hours of the cycle (for cyclic regeneration units). For continuous regeneration units, the test should be conducted no sooner than 3 days after process unit or control system start up. (2) Determine and record the HCl concentration corrected to 3 percent oxygen (using Equation 1 of § 63.1567) for each sampling location for each test run. (3) Determine and record the percent emission reduction, if applicable, using Equation 3 of § 63.1567 for each test run. (4) Determine and record the average HCl concentration (corrected to 3 percent oxygen) and the average percent emission reduction, if applicable, for the overall source test from the recorded test run values.
2. Wet scrubber	a. Establish operating limit for pH level or alkalinity.	i. Data from continuous parameter monitoring systems.	Measure and record the pH or alkalinity of the water (or scrubbing liquid) exiting scrubber every 15 minutes during the entire period of the performance test. Determine and record the minimum hourly average pH or alkalinity level from the recorded values.
		ii. Alternative pH procedure in § 63.1573 (b)(1).	Measure and record the pH of the water (or scrubbing liquid) exiting the scrubber during coke burn-off and catalyst rejuvenation using pH strips at least three times during each test run. Determine and record the average pH level for each test run. Determine and record the minimum test run average pH level.

TABLE 25 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR INORGANIC HAP EMISSIONS FOR CATALYTIC REFORMING UNITS—Continued

[As stated in § 63.1567(b)(2) and (3), you shall meet each requirement in the following table that applies to you.]

For each new and existing catalytic reforming unit using . . .	You shall . . .	Using . . .	According to these requirements . . .
		iii. Alternative alkalinity method in § 63.1573(b)(2).	Measure and record the alkalinity of the water (or scrubbing liquid) exiting the scrubber during coke burn-off and catalyst rejuvenation using discrete titration at least three times during each test run. Determine and record the average alkalinity level for each test run. Determine and record the minimum test run average alkalinity level.
	b. Establish operating limit for liquid-to-gas ratio.	i. Data from continuous parameter monitoring systems.	Measure and record the gas flow rate entering or exiting the scrubber and the total water (or scrubbing liquid) flow rate entering the scrubber every 15 minutes during the entire period of the performance test. Determine and record the hourly average gas flow rate and total water (or scrubbing liquid) flow rate. Determine and record the minimum liquid-to-gas ratio from the recorded, paired values.
		ii. Alternative procedure for gas flow rate in § 63.1573(a)(1).	Collect air flow rate monitoring data or determine the air flow rate using control room instruments every 15 minutes during the entire period of the initial performance test. Determine and record the hourly average rate of all the readings. Determine and record the maximum gas flow rate using Equation 1 of § 63.1573.
3. Internal scrubbing system or no control device (e.g., hot regen system) meeting HCl outlet concentration limit.	Establish operating limit for HCl concentration.	Data from continuous parameter monitoring system.	Measure and record the HCl concentration in the catalyst regenerator exhaust gas using the colormetric tube sampling system at least three times during each test run. Determine and record the average HCl concentration for each test run. Determine and record the average HCl concentration for the overall source test from the recorded test run averages. Determine and record the operating limit for HCl concentration using Equation 4 of § 63.1567.
4. Internal scrubbing system meeting HCl percent reduction standard.	a. Establish operating limit for pH level or alkalinity.	i. Data from continuous parameter monitoring system.	Measure and record the pH alkalinity of the water (or scrubbing liquid) exiting the internal scrubbing system every 15 minutes during the entire period of the performance test. Determine and record the minimum hourly average pH or alkalinity level from the recorded values.
		ii. Alternative pH method in § 63.1573(b)(1).	Measure and in record pH of the water (or scrubbing liquid) exiting the internal scrubbing system during coke burn-off and catalyst rejuvenation using pH strips at least three times during each test run. Determine and record the average pH level for each test run. Determine and record the minimum test run average pH level.
		iii. Alternative alkalinity method in § 63.1573(b)(2).	Measure and record the alkalinity water (or scrubbing liquid) exiting the internal scrubbing system during coke burn-off and catalyst rejuvenation using discrete titration at least three times during each test run. Determine and record the average alkalinity level for each test run. Determine and record the minimum test run average alkalinity level.
	b. Establish operating limit for liquid-to-gas ratio.	Data from continuous parameter monitoring systems.	Measure and record the gas entering or exiting the internal scrubbing system and the total water (or scrubbing liquid) flow rate entering the internal scrubbing system every 15 minutes during the entire period of the performance test. Determine and record the hourly average gas flow rate and total water (or scrubbing liquid) flow rate. Determine and record the minimum liquid-to-gas ratio from the recorded, paired values.
5. Fixed-bed gas-solid adsorption system. Gas-solid.	a. Establish operating limit for temperature.	Data from continuous parameter monitoring system.	Measure and record the temperature of gas entering or exiting the adsorption system every 15 minutes. Determine and record the maximum hourly average temperature.

TABLE 25 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS FOR INORGANIC HAP EMISSIONS FOR CATALYTIC REFORMING UNITS—Continued

[As stated in § 63.1567(b)(2) and (3), you shall meet each requirement in the following table that applies to you.]

For each new and existing catalytic reforming unit using . . .	You shall . . .	Using . . .	According to these requirements . . .
	b. Establish operating limit for HCl concentration.	i. Data from continuous parameter monitoring systems.	(1) Measure and record the HCl concentration in the exhaust gas from the fixed-bed adsorption system using the colormetric tube sampling system at least three times during each test run. Determine and record the average HCl concentration for each test run. Determine and record the average HCl concentration for the overall source test from the recorded test run averages. (2) If you elect to comply with the HCl outlet concentration limit (Option 2), determine and record the operating limit for HCl concentration using Equation 4 of § 63.1567. If you elect to comply with the HCl percent reduction standard (Option 1), determine and record the operating limit for HCl concentration using Equation 5 of § 63.1567.
6. Moving-bed gas-solid adsorption system (e.g., Chlorsorb™ System).	a. Establish operating limit for temperature.	Data from continuous parameter monitoring systems.	Measure and record the temperature of gas entering or exiting the adsorption system every 15 minutes. Determine and record the maximum hourly average temperature.
	b. Measure the chloride level on the sorbent entering and exiting the adsorption system.	Determination of Metal Concentration on Catalyst Particles (Instrumental Analyzer Procedure) in appendix A to subpart UUU; or EPA Method 5050 combined either with EPA Method 9056, or with EPA Method 9253; or EPA Method 9212 with the soil extraction procedures listed within the method.[1]	Measure and record the chloride concentration of the sorbent material entering and exiting the adsorption system at least three times during each test run. Determine and record the average weight percent chloride concentration of the sorbent entering the adsorption system for each test run. Determine and record the average weight percent chloride concentration of the sorbent exiting the adsorption system for each test run.

[1] The EPA Methods 5050, 9056, 9212 and 9253 are included in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, Revision 5 (April 1998). The SW–846 and Updates (document number 955–001–00000–1) are available for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512–1800; and from the National Technical Information Services (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 487–4650. Copies may be inspected at the EPA Docket Center (Air Docket), EPA West, Room B–108, 1301 Constitution Ave., NW., Washington, DC; or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC. These methods are also available at *http://www.epa.gov/epaoswer/hazwaste/test/main.htm.*

■ 29. Table 26 to subpart UUU of part 63 is revised as follows:

TABLE 26 TO SUBPART UUU OF PART 63.—INITIAL COMPLIANCE WITH INORGANIC HAP EMISSION LIMITS FOR CATALYTIC REFORMING UNITS

[As stated in § 63.1567(b)(4), you shall meet each requirement in the following table that applies to you.]

For . . .	For the following emission limit . . .	You have demonstrated initial compliance if . . .
1. Each existing semi-regenerative catalytic reforming unit.	Reduce uncontrolled emissions of HCl by 92 percent by weight or to a concentration of 30 ppmv, (dry basis), corrected to 3 percent oxygen.	Average emissions HCl measured using Method 26 or 26A, as applicable, over the period of the performance test, are reduced by 92 percent or to a concentration less than or equal to 30 ppmv (dry basis) corrected to 3 percent oxygen.
2. Each existing cyclic or continuous catalytic reforming unit and each new semi-regenerative, cyclic, or continuous catalytic reforming unit.	Reduce uncontrolled emissions of HCl by 97 percent by weight or to a concentration of 10 ppmv (dry basis), corrected to 3 percent oxygen.	Average emissions of HCl measured using Method 26 or 26A, as applicable, over the period of the performance test, are reduced by 97 percent or to a concentration less than or equal to 10 ppmv (dry basis) corrected to 3 percent oxygen.

■ 30. Table 27 to subpart UUU of part 63 is revised as follows:

TABLE 27 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH INORGANIC HAP EMISSION LIMITS FOR CATALYTIC REFORMING UNITS

[As stated in § 63.1567(c)(1), you shall meet each requirement in the following table that applies to you.]

For . . .	For this emission limit . . .	You shall demonstrate continuous compliance during coke burn-off and catalyst rejuvenation by . . .
1. Each existing semi-regenerative catalytic reforming unit.	Reduce uncontrolled emissions of HCl by 92 percent by weight or to a concentration of 30 ppmv (dry basis), corrected to 3 percent oxygen..	Maintaining a 92 percent HCl emission reduction or an HCl concentration no more than 30 ppmv (dry basis), corrected to 3 percent oxygen.
2. Each existing cyclic or continuous catalytic reforming unit.	Reduce uncontrolled emissions of HCl by 97 percent by weight or to a concentration of 10 ppmv (dry basis), corrected to 3 percent oxygen.	Maintaining a 97 percent HCl control efficiency or an HCl concentration no more than 10 ppmv (dry basis), corrected to 3 percent oxygen.
3. Each new semi-regenerative, cyclic, or continuous catalytic reforming unit.	Reduce uncontrolled emissions of HCl by 97 percent by weight or to a concentration of 10 ppmv (dry basis), corrected to 3 percent oxygen.	Maintaining a 97 percent HCl control efficiency or an HCl concentration no more than 10 ppmv (dry basis), corrected to 3 percent oxygen.

■ 31. Table 28 to subpart UUU of part 63 is revised as follows:

TABLE 28 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS FOR INORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS

[As stated in § 63.1567(c)(1), you shall meet each requirement in the following table that applies to you.]

For each new and existing catalytic reforming unit using this type of control device or system . . .	For this operating limit . . .	You shall demonstrate continuous compliance during coke burn-off and catalyst rejuvenation by . . .
1. Wet scrubber	a. The daily average pH or alkalinity of the water (or scrubbing liquid) exiting the scrubber must not fall below the level established during the performance test.	Collecting the hourly and daily average pH or alkalinity monitoring data according to § 63.1572 [1]; and maintaining the daily average pH or alkalinity above the operating limit established during the performance test.
	b. The daily average liquid-to-gas ratio must not fall below the level established during the performance test.	Collecting the hourly average gas flow rate [2] and total water (or scrubbing liquid) flow rate monitoring data according to § 63.1572; and determining and recording the hourly average liquid-to-gas ratio; and determining and recording the daily average liquid-to-gas ratio; and maintaining the daily average liquid-to-gas ratio above the limit established during the performance test.
2. Internal scrubbing system or no control device (e.g., hot regen system) meeting HCl concentration limit.	The daily average HCl concentration in the catalyst regenerator exhaust gas must not exceed the limit established during the performance test.	Measuring and recording the HCl concentration at least 4 times during a regeneration cycle (equally spaced in time) or every 4 hours, whichever is more frequent, using a colormetric tube sampling system; calculating the daily average HCl concentration as an arithmetic average of all samples collected in each 24-hour period from the start of the coke burn-off cycle or for the entire duration of the coke burn-off cycle if the coke burn-off cycle is less than 24 hours; and maintaining the daily average HCl concentration below the applicable operating limit.
3. Internal scrubbing system meeting percent HCl reduction standard.	a. The daily average pH or alkalinity of the water (or scrubbing liquid) exiting the internal scrubbing system must not fall below the limit established during the performance test.	Collecting the hourly and daily average pH or alkalinity monitoring data according to § 63.1572 [1] and maintaining the daily average pH or alkalinity above the operating limit established during the performance test.
	b. The daily average liquid-to-gas ratio must not fall below the level established during the performance test.	Collecting the hourly average gas flow rate [2] and total water (or scrubbing liquid) flow rate monitoring data according to § 63.1572; and determining and recording the hourly average liquid-to-gas ratio; and determining and recording the daily average liquid-to-gas ratio; and maintaining the daily average liquid-to-gas ratio above the limit established during the performance test.

TABLE 28 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS FOR INORGANIC HAP EMISSIONS FROM CATALYTIC REFORMING UNITS—Continued

[As stated in § 63.1567(c)(1), you shall meet each requirement in the following table that applies to you.]

For each new and existing catalytic reforming unit using this type of control device or system . . .	For this operating limit . . .	You shall demonstrate continuous compliance during coke burn-off and catalyst rejuvenation by . . .
4. Fixed-bed gas-solid adsorption systems.	a. The daily average temperature of the gas entering or exiting the adsorption system must not exceed the limit established during the performance test.	Collecting the hourly and daily average temperature monitoring data according to § 63.1572; and maintaining the daily average temperature below the operating limit established during the performance test.
	b. The HCl concentration in the exhaust gas from the fixed-bed gas-solid adsorption system must not exceed the limit established during the performance test.	Measuring and recording the concentration of HCl weekly or during each regeneration cycle, whichever is less frequent, using a colormetric tube sampling system at a point within the adsorbent bed not to exceed 90 percent of the total length of the adsorption bed during coke-burn-off and catalyst rejuvenation; implementing procedures in the operating and maintenance plan if the HCl concentration at the sampling location within the adsorption bed exceeds the operating limit; and maintaining the HCl concentration in the gas from the adsorption system below the applicable operating limit.
5. Moving-bed gas-solid adsorption system (e.g., Chlorsorb™ System.	a. The daily average temperature of the gas entering or exiting the adsorption system must not exceed the limit established during the performance test.	Collecting the hourly and daily average temperature monitoring data according to § 63.1572; and maintaining the daily average temperature below the operating limit established during the performance test.
	b. The weekly average chloride level on the sorbent entering the adsorption system must not exceed the design or manufacturer's recommended limit (1.35 weight percent for the Clorsorb™.	Collecting samples of the sorbent exiting the adsorption system three times per week (on non-consecutive days); and analyzing the samples for total chloride [3]; and determining and recording the weekly average chloride concentration; and maintaining the chloride concentration below the design or manufacturer's recommended limit (1.35 weight percent for the Chlorsorb™ System).
	c. The weekly average chloride level on the sorbent exiting the adsorption system must not exceed the design or manufacturer's recommended limit (1.8 weight percent for the Clorsorb™ System).	Collecting samples of the sorbent exiting the adsorption system three times per week (on non-consecutive days); and analyzing the samples for total chloride concentration; and determining and recording the weekly average chloride concentration; and maintaining the chloride concentration below the design or manufacturer's recommended limit (1.8 weight percent Chlorsorb™ System).

[1] If applicable, you can use either alternative in § 63.1573(b) instead of a continuous parameter monitoring system for pH or alkalinity if you used the alternative method in the initial performance test.

[2] If applicable, you can use the alternative in § 63.1573(a)(1) instead of a continuous parameter monitoring system for the gas flow rate or cumulative volume of gas entering or exiting the system if you used the alternative method in the initial performance test.

[3] The total chloride concentration of the sorbent material must be measured by the procedure, "Determination of Metal Concentration on Catalyst Particles (Instrumental Analyzer Procedure)" in appendix A to this subpart; or by using EPA Method 5050, Bomb Preparation Method for Solid Waste, combined either with EPA Method 9056, Determination of Inorganic Anions by Ion Chromatography, or with EPA Method 9253, Chloride (Titrimetric, Silver Nitrate); or by using EPA Method 9212, Potentiometric Determination of Chloride in Aqueous Samples with Ion-Selective Electrode, and using the soil extraction procedures listed within the method. The EPA Methods 5050, 9056, 9212 and 9253 are included in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW–846, Revision 5 (April 1998). The SW–846 and Updates (document number 955–001–00000–1) are available for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512–1800; and from the National Technical Information Services (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 487–4650. Copies may be inspected at the EPA Docket Center (Air Docket), EPA West, Room B–108, 1301 Constitution Ave., NW., Washington, DC; or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC. These methods are also available at *http://www.epa.gov/epaoswer/hazwaste/test/main.htm*.

■ 32. Table 31 to subpart UUU of part 63 is amended by revising entry 1 and 3 as follows:

TABLE 31 TO SUBPART UUU OF PART 63.—CONTINUOUS MONITORING SYSTEMS FOR HAP EMISSIONS FROM SULFUR RECOVERY UNITS

* * * * *

For . . .	For this limit . . .	You shall install and operate this continuous monitoring system . . .
1. Each new or existing Claus sulfur recovery unit part of a sulfur recovery plant of 20 long tons per day or more and subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	a. 250 ppmv (dry basis) of SO_2 at zero percent excess air if you use an oxidation or reduction control system followed by incineration.	Continuous emission monitoring system to measure and record the hourly average concentration of SO_2 (dry basis) at zero percent excess air for each exhaust stack. This system must include an oxygen monitor for correcting the data for excess air.
	b. 300 ppmv of reduced sulfur compounds calculated as ppmv SO_2 (dry basis) at zero percent excess air if you use a reduction control system without incineration.	Continuous emission monitoring system to measure and record the hourly average concentration of reduced sulfur and oxygen (O_2) emissions. Calculate the reduced sulfur emissions as SO_2 (dry basis) at zero percent excess air. *Exception:* You can use an instrument having an air or SO_2 dilution and oxidation system to convert the reduced sulfur to SO_2 for continuously monitoring and recording the concentration (dry basis) at zero percent excess air of the resultant SO_2 instead of the reduced sulfur monitor. The monitor must include an oxygen monitor for correcting the data for excess oxygen.
* *	* * *	* *
3. Option 2: TRS limit. Each new or existing sulfur recovery unit (Claus or other type, regardless of size) not subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	300 ppmv of total reduced sulfur (TRS) compounds, expressed as an equivalent SO_2 concentration (dry basis) at zero percent oxygen.	i. Continuous emission monitoring system to measure and record the hourly average concentration of TRS for each exhaust stack; this monitor must include an oxygen monitor for correcting the data for excess oxygen; or ii. Continuous parameter monitoring systems to measure and record the combustion zone temperature of each thermal incinerator and the oxygen content (percent, dry basis) in the vent stream of the incinerator.

■ 33. Table 33 to subpart UUU of part 63 is revised as follows:

TABLE 33 TO SUBPART UUU OF PART 63.—INITIAL COMPLIANCE WITH HAP EMISSION LIMITS FOR SULFUR RECOVERY UNITS

[As stated in § 63.1568(b)(5), you shall meet each requirement in the following table that applies to you.]

For . . .	For the following emission limit . . .	You have demonstrated initial compliance if . . .
1. Each new or existing Claus sulfur recovery unit part of a sulfur recovery plant of 20 long tons per day or more and subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	a. 250 ppmv (dry basis) SO_2 at zero percent excess air if you use an oxidation or reduction control system followed by incineration.	You have already conducted a performance test to demonstrate initial compliance with the NSPS and each 12-hour rolling average concentration of SO_2 emissions measured by the continuous emission monitoring system is less than or equal to 250 ppmv (dry basis) at zero percent excess air. As part of the Notification of Compliance Status, you must certify that your vent meets the SO_2 limit. You are not required to do another performance test to demonstrate initial compliance. You have already conducted a performance evaluation to demonstrate initial compliance with the applicable performance specification. As part of your Notification of Compliance Status, you must certify that your continuous emission monitoring system meets the applicable requirements in § 63.1572. You are not required to do another performance evaluation to demonstrate initial compliance.

TABLE 33 TO SUBPART UUU OF PART 63.—INITIAL COMPLIANCE WITH HAP EMISSION LIMITS FOR SULFUR RECOVERY UNITS—Continued

[As stated in § 63.1568(b)(5), you shall meet each requirement in the following table that applies to you.]

For . . .	For the following emission limit . . .	You have demonstrated initial compliance if . . .
	b. 300 ppmv of reduced sulfur compounds calculated as ppmv SO_2 (dry basis) at zero percent excess air if you use a reduction control system without incineration.	You have already conducted a performance test to demonstrate initial compliance with the NSPS and each 12-hour rolling average concentration of reduced sulfur compounds measured by your continuous emission monitoring system is less than or equal to 300 ppmv, calculated as ppmv SO_2 (dry basis) at zero percent excess air. As part of the Notification of Compliance Status, you must certify that your vent meets the SO_2 limit. You are not required to do another performance test to demonstrate initial compliance. You have already conducted a performance evaluation to demonstrate initial compliance with the applicable performance specification. As part of your Notification of Compliance Status, you must certify that your continuous emission monitoring system meets the applicable requirements in § 63.1572. You are not required to do another performance evaluation to demonstrate initial compliance.
2. Option 1: Elect NSPS. Each new or existing sulfur recovery unit (Claus or other type, regardless of size) not subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	a. 250 ppmv (dry basis) of SO_2 at zero percent excess air if you use an oxidation or reduction control system followed by incineration.	Each 12-hour rolling average concentration of SO_2 emissions measured by the continuous emission monitoring system during the initial performance test is less than or equal to 250 ppmv (dry basis) at zero percent excess air; and your performance evaluation shows the monitoring system meets the applicable requirements in § 63.1572.
	b. 300 ppmv of reduced sulfur compounds calculated as ppmv SO_2 (dry basis) at zero percent excess air if you use a reduction control system without incineration.	Each 12-hour rolling average concentration of reduced sulfur compounds measured by the continuous emission monitoring system during the initial performance test is less than or equal to 300 ppmv, calculated as ppmv SO_2 (dry basis) at zero percent excess air; and your performance evaluation shows the continuous emission monitoring system meets the applicable requirements in § 63.1572.
3. Option 2: TRS limit. Each new or existing sulfur recovery unit (Claus or other type, regardless of size) not subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	300 ppmv of TRS compounds expressed as an equivalent SO_2 concentration (dry basis) at zero percent oxygen.	If you use continuous parameter monitoring systems, the average concentration of TRS emissions measured using Method 15 during the initial performance test is less than or equal to 300 ppmv expressed as equivalent SO_2 concentration (dry basis) at zero percent oxygen. If you use a continuous emission monitoring system, each 12-hour rolling average concentration of TRS emissions measured by the continuous emission monitoring system during the initial performance test is less than or equal to 300 ppmv expressed as an equivalent SO_2 (dry basis) at zero percent oxygen; and your performance evaluation shows the continuous emission monitoring system meets the applicable requirements in § 63.1572.

■ 34. Table 34 to subpart UUU of part 63 is revised as follows:

TABLE 34 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH HAP EMISSION LIMITS FOR SULFUR RECOVERY UNITS

[As stated in § 63.1568(c)(1), you shall meet each requirement in the following table that applies to you.]

For . . .	For this emission limit . . .	You shall demonstrate continuous compliance by . . .
1. Each new or existing Claus sulfur recovery unit part of a sulfur recovery plant of 20 long tons per day or more and subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	a. 250 ppmv (dry basis) of SO_2 at zero percent excess air if you use an oxidation or reduction control system followed by incineration.	Collecting the hourly average SO_2 monitoring data (dry basis, percent excess air) according to § 63.1572; determining and recording each 12-hour rolling average concentration of SO_2; maintaining each 12-hour rolling average concentration of SO_2 at or below the applicable emission limitation; and reporting any 12-hour rolling average concentration of SO_2 greater than the applicable emission limitation in the compliance report required by § 63.1575.
	b. 300 ppmv of reduced sulfur compounds calculated as ppmv SO_2 (dry basis) at zero percent excess air if you use a reduction control system without incineration.	Collecting the hourly average reduced sulfur (and air or O_2 dilution and oxidation) monitoring data according to § 63.1572; determining and recording each 12-hour rolling average concentration of reduced sulfur; maintaining each 12-hour rolling average concentration of reduced sulfur at or below the applicable emission limitation; and reporting any 12-hour rolling average concentration of reduced sulfur greater than the applicable emission limitation in the compliance report required by § 63.1575.
2. Option 1: Elect NSPS. Each new or existing sulfur recovery unit (Claus or other type, regardless of size) not subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	a. 250 ppmv (dry basis) of SO_2 at zero percent excess air if you use an oxidation or reduction control system followed by incineration.	Collecting the hourly average SO_2 data (dry basis, percent excess air) according to § 63.1572; determining and recording each 12-hour rolling average concentration of SO_2; maintaining each 12-hour rolling average concentration of SO_2 at or below the applicable emission limitation; and reporting any 12-hour rolling average concentration of SO_2 greater than the applicable emission limitation in the compliance report required by § 63.1575.
	b. 300 ppmv of reduced sulfur compounds calculated as ppmv SO_2 (dry basis) at zero percent excess air if you use a reduction control system without incineration.	Collecting the hourly average reduced sulfur (and air or O_2 dilution and oxidation) monitoring data according to § 63.1572; determining and recording each 12-hour rolling average concentration of reduced sulfur; maintaining each 12-hour rolling average concentration of reduced sulfur at or below the applicable emission limitation; and reporting any 12-hour rolling average concentration of reduced sulfur greater than the applicable emission limitation in the compliance report required by § 63.1575.
3. Option 2: TRS limit. Each new or existing sulfur recovery unit (Claus or other type, regardless of size) not subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).	300 ppmv of TRS compounds, expressed as an SO_2 concentration (dry basis) at zero percent oxygen or reduced sulfur compounds calculated as ppmv SO_2 (dry basis) at zero percent excess air.	i. If you use continuous parameter monitoring systems, collecting the hourly average TRS monitoring data according to § 63.1572 and maintaining each 12-hour average concentration of TRS at or below the applicable emission limitation; or
		ii. If you use a continuous emission monitoring system, collecting the hourly average TRS monitoring data according to § 63.1572, determining and recording each 12-hour rolling average concentration of TRS; maintaining each 12-hour rolling average concentration of TRS at or below the applicable emission limitation; and reporting any 12-hour rolling average TRS concentration greater than the applicable emission limitation in the compliance report required by § 63.1575.

■ 35. Table 36 to subpart UUU is amended to revise entry 1 as follows:

TABLE 36 TO SUBPART UUU OF PART 63.—WORK PRACTICE STANDARDS FOR HAP EMISSIONS FROM BYPASS LINES

Option	You shall meet one of these equipment standards . . .
1. Option 1	Install and operate a device (including a flow indicator, level recorder, or electronic valve position monitor) to demonstrate, either continuously or at least every hour, whether flow is present in the by bypass line. Install the device at or as near as practical to the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere.
* * * * * * *	

■ 36. Table 38 to subpart UUU is revised as follows:

TABLE 38 TO SUBPART UUU OF PART 63.—INITIAL COMPLIANCE WITH WORK PRACTICE STANDARDS FOR HAP EMISSIONS FROM BYPASS LINES

[As stated in § 63.1569(b)(2), you shall meet each requirement in the following table that applies to you.]

Option . . .	For this work practice standard . . .	You have demonstrated initial compliance if . . .
1. Each new or existing bypass line associated with a catalytic cracking unit, catalytic reforming unit, or sulfur recovery unit.	a. Option 1: Install and operate a device (including a flow indicator, level recorder, or electronic valve position monitor) to demonstrate, either continuously or at least every hour, whether flow is present in bypass line. Install the device at or as near as practical to the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere.	The installed equipment operates properly during each run of the performance test and no flow is present in the line during the test.
	b. Option 2: Install a car-seal or lock-and-key device placed on the mechanism by which the bypass device flow position is controlled (e.g., valve handle, damper level) when the bypass device is in the closed position such that the bypass line valve cannot be opened without breaking the seal or removing the device.	As part of the notification of compliance status, you certify that you installed the equipment, the equipment was operational by your compliance date, and you identify what equipment was installed.
	c. Option 3: Seal the bypass line by installing a solid blind between piping flanges.	See item 1.b of this table.
	d. Option 4: Vent the bypass line to a control device that meets the appropriate requirements in this subpart.	See item 1.b of this table.

■ 37. Table 39 to subpart UUU is amended by revising entry 1 as follows:

TABLE 39 TO SUBPART UUU OF PART 63.—CONTINUOUS COMPLIANCE WITH WORK PRACTICE STANDARDS FOR HAP EMISSIONS FROM BYPASS LINES

* * * * *

If you elect this standard . . .	You shall demonstrate continuous compliance by . . .
1. Option 1: Flow indicator, level recorder, or electronic valve position monitor.	Monitoring and recording on a continuous basis or at least every hour whether flow is present in the bypass line; visually inspecting the device at least once every hour if the device is not equipped with a recording system that provides a continuous record; and recording whether the device is operating properly and whether flow is present in the bypass line.
* * * * * * *	

■ 38. Table 40 to subpart UUU is amended to revise entry 4, 5, 6, and 8 as follows:

TABLE 40 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR INSTALLATION, OPERATION, AND MAINTENANCE OF CONTINUOUS OPACITY MONITORING SYSTEMS AND CONTINUOUS EMISSION MONITORING SYSTEMS

* * * * *

This type of continuous opacity or emission monitoring system . . .	Must meet these requirements . . .
* * * *	* * *
4. SO_2 continuous emission monitoring system for sulfur recovery unit with oxidation control system or reduction control system; this monitor must include an O_2 monitor for correcting the data for excess air.	Performance specification 2 (40 CFR part 60, appendix B); span value of 500 ppm SO_2; use Methods 6 or 6C and 3A or 3B (40 CFR part 60, appendix A) for certifying O_2 monitor; and procedure 1 (40 CFR part 60, appendix F) except relative accuracy test audits are required annually instead of quarterly.
5. Reduced sulfur and O_2 continuous emission monitoring system for sulfur recovery unit with reduction control system not followed by incineration; this monitor must include an O_2 monitor for correcting the data for excess air unless exempted.	Performance specification 5 (40 CFR part 60, appendix B), except calibration drift specification is 2.5 percent of the span value instead of 5 percent; 450 ppm reduced sulfur; use Methods 15 or 15A and 3A or 3B (40 CFR part 60, appendix A) for certifying O_2monitor; if Method 3A or 3B yields O_2 concentrations below 0.25 percent during the performance evaluation, the O_2 concentration can be assumed to be zero and the O_2 monitor is not required; and procedure 1 (40 CFR part 60, appendix F), except relative accuracy test audits, are required annually instead of quarterly.
6. Instrument with an air or O_2 dilution and oxidation system to convert reduced sulfur to SO_2 for continuously monitoring the concentration of SO_2 instead of reduced sulfur monitor and O_2 monitor.	Performance specification 5 (40 CFR part 60, appendix B); span value of 375 ppm SO_2; use Methods 15 or 15A and 3A or 3B for certifying O_2 monitor; and procedure 1 (40 CFR part 60, appendix F), except relative accuracy test audits, are required annually instead of quarterly.
* * * *	* * *
8. O_2 monitor for oxygen concentration.	If necessary due to interferences, locate the oxygen sensor prior to the introduction of any outside gas stream; performance specification 3 (40 CFR part 60, appendix B; and procedure 1 (40 CFR part 60, appendix F), except relative accuracy test audits, are required annually instead of quarterly.

■ 39. Table 41 to Subpart UUU is revised as follows:

TABLE 41 TO SUBPART UUU OF PART 63.—REQUIREMENTS FOR INSTALLATION, OPERATION, AND MAINTENANCE OF CONTINUOUS PARAMETER MONITORING SYSTEMS

[As stated in § 63.1572(c)(1), you shall meet each requirement in the following table that applies to you.]

If you use . . .	You shall . . .
1. pH strips	Use pH strips with an accuracy of ± 10 percent.
2. Colormetric tube sampling system.	Use a colormetric tube sampling system with a printed numerical scale in ppmv, a standard measurement range of 1 to 10 ppmv (or 1 to 30 ppmv if applicable), and a standard deviation for measured values of no more than ± 15 percent. System must include a gas detection pump and hot air probe if needed for the measurement range.

■ 40. Table 44 to subpart UUU of part 63 is revised as follows:

TABLE 44 TO SUBPART UUU OF PART 63.—APPLICABILITY OF NESHAP GENERAL PROVISIONS TO SUBPART UUU

[As stated in § 63.1577, you shall meet each requirement in the following table that applies to you.]

Citation	Subject	Applies to supbart UUU	Explanation
§ 63.1	Applicability	Yes	Except that subpart UUU specifies calendar or operating day.
§ 63.2	Definitions	Yes.	
§ 63.3	Units and Abbreviations	Yes.	
§ 63.4	Prohibited Activities	Yes.	
§ 63.5(A)–(C)	Construction and Reconstruction.	Yes	In § 63.5(b)(4), replace the reference to § 63.9 with § 63.9(b)(4) and (5).

TABLE 44 TO SUBPART UUU OF PART 63.—APPLICABILITY OF NESHAP GENERAL PROVISIONS TO SUBPART UUU—Continued

[As stated in § 63.1577, you shall meet each requirement in the following table that applies to you.]

Citation	Subject	Applies to supbart UUU	Explanation
§ 63.5(d)(1)(i)	Application for Approval of Construction or Reconstruction—General Application Requirements.	Yes	Except, subpart UUU specifies the application is submitted as soon as practicable before startup but not later than 90 days (rather then 60) after the promulgation date where construction or reconstruction had commenced and initial startup had not occurred before promulgation.
§ 63.5(d)(1)(ii)		Yes	Except that emission estimates specified in § 63.5(d)(1)(ii)(H) are not required.
§ 63.5(d)(1)(iii)		No	Subpart UUU specifies submission of notification of compliance status.
§ 63.5(d)(2)		No.	
§ 63.5(d)(3)		Yes	Except that § 63.5(d)(3)(ii) does not apply.
§ 63.5(d0(4)		Yes.	
§ 63.5(e)	Approval of Construction or Reconstruction.	Yes.	
§ 63.5(f)(1)	Approval of Construction or Reconstruction Based on State Review.		
§ 63.5(f)(2)		Yes	Except that 60 days is changed to 90 days and cross-reference to 53.9(B)(2) does not apply.
§ 63.6(a)	Compliance with Standards and Maintenance—Applicability.	Yes.	
§ 63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed Sources.	Yes.	
§ 63.6(b)(5)		Yes	Except that subpart UUU specifies different compliance dates for sources.
§ 63.6(b)(6)	[Reserved]	Not applicable.	
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major.	Yes.	
§ 63.6(c)(1)–(2)	Compliance Dates for Existing Sources.	Yes	Except that subpart UUU specifies different compliance dates for sources subject to Tier II gasoline sulfur control requirements.
§ 63.6(c)(3)–(4)	[Reserved]	Not applicable.	
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major.	Yes.	
§ 63.6(d)	[Reserved]	Not applicable.	
§ 63.6(e)(1)–(2)	Operation and Maintenance Requirements.	Yes.	
§ 63.6(e)(3)(i)–(iii)	Startup, Shutdown, and Malfunction Plan.	Yes.	
§ 63.6(e)(3)(iv)		Yes	Except that reports of actions not consistent with plan are not required within 2 and 7 days of action but rather must be included in next periodic report.
§ 63.6(e)(3)(v)–(viii)		Yes	The owner or operator is only required to keep the latest version of the plan.
§ 63.6(f)(1)–(2)(iii)(C)	Compliance with Emission Standards.	Yes.	
§ 63.6(f)(2)(iii)(D)		No.	
§ 63.6(f)(2)(iv)–(v)		Yes.	
§ 63.6(f)(3)		Yes.	
§ 63.6(g)	Alternative Standard	Yes.	
§ 63.6(h)	Opacity/VE Standards	Yes.	
§ 63.6(h)(2)(i)	Determining Compliance with Opacity/VE Standards.	No	Subpart UUU specifies methods.
§ 63.6(h)(2)(ii)	[Reserved]	Not applicable.	
§ 63.6(h)(2)(iii)		Yes.	
§ 63.6(h)(3)	[Reserved]	Not applicable.	
§ 63.6(h)(4)	Notification of Opacity/VE Observation Date.	Yes	Applies to Method 22 tests.
§ 63.6(h)(5)	Conducting Opacity/VE Observations.	No.	

TABLE 44 TO SUBPART UUU OF PART 63.—APPLICABILITY OF NESHAP GENERAL PROVISIONS TO SUBPART UUU—Continued

[As stated in § 63.1577, you shall meet each requirement in the following table that applies to you.]

Citation	Subject	Applies to supbart UUU	Explanation
§ 63.6(h)(6)	Records of Conditions During Opacity/VE Observations.	Yes	Applies to Method 22 observations.
§ 63.6(h)(7)(i)	Report COM Monitoring Data from Performance Test.	Yes.	
§ 63.6(h)(7)(ii)	Using COM Instead of Method 9.	No.	
§ 63.6(h)(7)(iii)	Averaging Time for COM during Performance Test.	Yes.	
§ 63.6(h)(7)(iv)	COM Requirements	Yes.	
§ 63.6(h)(8)	Determining Compliance with Opacity/VE Standards.	Yes.	
§ 63.6(h)(9)	Adjusted Opacity Standard	Yes.	
§ 63.6(i)(1)–(14)	Extension of Compliance	Yes	Extension of compliance under § 63.6(i)(4) not applicable to a facility that installs catalytic cracking feed hydrotreating and receives an extended compliance date under § 63.1563(c).
§ 63.6(i)(15)	[Reserved]	Not applicable.	
§ 63.6(i)(16)		Yes.	
§ 63.6(j)	Presidential Compliance Exemption.	Yes.	
§ 63.7(a)(1)	Performance Test Requirements Applicability.	Yes	Except that subpart UUU specifies the applicable test and demonstration procedures.
§ 63.7(a)(2)	Performance Test Dates	No	Test results must be submitted in the Notification of Compliance Status report due 150 days after the compliance date.
§ 63.7(a)(3)	Section 114 Authority	Yes.	
§ 63.7(b)	Notifications	Yes	Except that subpart UUU specifies notification at least 30 days prior to the scheduled test date rather than 60 days.
§ 63.7(c)	Quality Assurance Program/Site-Specific Test Plan.	Yes.	
§ 63.7(d)	Performance Test Facilities	Yes.	
§ 63.7(e)	Conduct of Tests	Yes.	
§ 63.7(f)	Alternative Test Method	Yes.	
§ 63.7(g)	Data Analysis, Recordkeeping, Reporting.	Yes	Except performance test reports must be submitted with notification of compliance status due 150 days after the compliance date.
§ 63.7(h)	Waiver of Tests	Yes.	
§ 63.8(a)(1)	Monitoring Requirements-Applicability.	Yes.	
§ 63.8(a)(2)	Performance Specifications	Yes.	
§ 63.8(a)(3)	[Reserved]	Not applicable.	
§ 63.8(a)(4)	Monitoring with Flares	Yes.	
§ 63.8(b)(1)	Conduct of Monitoring	Yes.	
§ 63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems.	Yes	Subpart UUU specifies the required monitoring locations.
§ 63.8(c)(1)	Monitoring System Operation and Maintenance.	Yes.	
§ 63.8(c)(1)(i)–(ii)	Startup, Shutdown, and Malfunctions.	Yes	Except that subpart UUU specifies that reports are not required if actions are consistent with the SSM plan, unless requested by the permitting authority. If actions are not consistent, actions must be described in next compliance report.
§ 63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements.	Yes.	
§ 63.8(c)(2)–(3)	Monitoring System Installation.	Yes	Except that subpart UUU specifies that for continuous parameter monitoring systems, operational status verification includes completion of manufacturer written specifications or installation, operation, and calibration of the system or other written procedures that provide adequate assurance that the equipment will monitor accurately.
§ 63.8(c)(4)	Continuous Monitoring System Requirements.	No	Subpart UUU specifies operational requirements.

TABLE 44 TO SUBPART UUU OF PART 63.—APPLICABILITY OF NESHAP GENERAL PROVISIONS TO SUBPART UUU—Continued

[As stated in § 63.1577, you shall meet each requirement in the following table that applies to you.]

Citation	Subject	Applies to supbart UUU	Explanation
§ 63.8(c)(4)(i)–(ii)	Continuous Monitoring System Requirements.	Yes	Except that these requirements apply only to a continuous opacity monitoring system or a continuous emission monitoring system if you are subject to the NSPS or elect to comply with the NSPS opacity, CO, or SO_2 limits.
§ 63.8(c)(5)	COM Minimum Procedures	Yes.	
§ 63.8(c)(6)	CMS Requirements	No	Except that these requirements apply only to a continuous opacity monitoring system or continuous emission monitoring system if you are subject to the NSPS or elect to comply with the NSPS opacity, CO, or SO_2 limits.
§ 63.8(c)(7)–(8)	CMS Requirements	Yes.	
§ 63.8(d)	Quality Control Program	Yes	Except that these requirements apply only to a continuous opacity monitoring system or continuous emission monitoring system if you are subject to the NSPS or elect to comply with the NSPS opacity, CO, or SO_2 limits.
§ 63.8(e)	CMS Performance Evaluation.	Yes	Except that these requirements apply only to a continuous opacity monitoring system or continuous emission monitoring system if you are subject to the NSPS or elect to comply with the NSPS opacity, CO, or SO_2 limits. Results are to be submitted as part of the Notification Compliance Status due 150 days after the compliance date.
§ 63.8(f)(1)–(5)	Alternative Monitoring Methods.	Yes	Except that subpart UUU specifies procedures for requesting alternative monitoring systems and alternative parameters.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test.	Yes	Applicable to continuous emission monitoring systems if performance specification requires a relative accuracy test audit.
§ 63.8(g)(1)–(4)	Reduction of Monitoring Data.	Yes	Applies to continuous opacity monitoring system or continuous emission monitoring system.
§ 63.8(g)(5)	Data Reduction	No	Subpart UUU specifies requirements.
§ 63.9(a)	Notification Requirements—Applicability.	Yes	Duplicate Notification of Compliance Status report to the Regional Administrator may be required.
§ 63.9(b)(1)–(2), (4)–(5)	Initial Notifications	Yes	Except that notification of construction or reconstruction is to be submitted as soon as practicable before startup but no later than 30 days (rather than 60 days) after the effective date if construction or reconstruction had commenced but startup had not occurred before the effective date.
§ 63.9(b)(3)	[Reserved].		
§ 63.9(c)	Request for Extension of Compliance.	Yes.	
§ 63.9(d)	New Source Notification for Special Compliance Requirements.	Yes.	
§ 63.9(e)	Notification of Performance Test.	Yes	Except that notification is required at least 30 days before test.
§ 63.9(f)	Notification of VE/Opacity Test.	Yes.	
§ 63.9(g)	Additional Notification Requirements for Sources with Continuous Monitoring Systems.	Yes	Except that these requirements apply only to a continuous opacity monitoring system or continuous emission monitoring system if you are subject to the NSPS or elect to comply with the NSPS opacity, CO, or SO_2 limits.
§ 63.9(h)	Notification of Compliance Status.	Yes	Except that subpart UUU specifies the notification is due no later than 150 days after compliance date.
§ 63.9(i)	Adjustment of Deadlines	Yes.	
§ 63.9(j)	Change in Previous Information.	Yes.	
63. 10(a)	Recordkeeping and Reporting Applicability.	Yes.	
§ 63.10(b)	Records	Yes	Except that § 63.10(b)(2)(xiii) applies if you use a continuous emission monitoring system to meet the NSPS or you select to meet the NSPS, CO, or SO_2 reduced sulfur limit and the performance evaluation requires a relative accuracy test audit.

TABLE 44 TO SUBPART UUU OF PART 63.—APPLICABILITY OF NESHAP GENERAL PROVISIONS TO SUBPART UUU—Continued

[As stated in § 63.1577, you shall meet each requirement in the following table that applies to you.]

Citation	Subject	Applies to supbart UUU	Explanation
§ 63.10(c)(1)–(6), (9)–(15)	Additional Records for Continuous Monitoring Systems.	Yes	Except that these requirements apply if you use a continuous opacity monitoring system or a continuous emission monitoring system to meet the NSPS or elect to meet the NSPS opacity, CO, or SO_2 limits.
§ 63.10(c)(7)–(8)	Records of Excess Emissions and Exceedances.	No	Subpart UUU specifies requirements.
§ 63.10(d)(1)	General Reporting Requirements.	Yes.	
§ 63.10(d)(2)	Performance Test Results	No	Subpart UUU requires performance test results to be reported as part of the Notification of Compliance Status due 150 days after the compliance date.
§ 63.10(d)(3)	Opacity or VE Observations.	Yes.	
§ 63.10(d)(4)	Progress Reports	Yes.	
§ 63.10(d)(5)(i)	Startup, Shutdown, and Malfunction Reports.	Yes	Except that reports are not required if actions are consistent with the SSM plan, unless requested by permitting authority.
§ 63.10(d)(5)(ii)		Yes	Except that actions taken during a startup, shutdown, or malfunction that are not consistent with the plan do not need to be reported within 2 and 7 days of commencing and completing the action, respectively, but must be included in the next periodic report.
§ 63.10(e)(1)–(2)	Additional CMS Reports	Yes	Except that these requirements apply only to a continuous opacity monitoring system or continuous emission monitoring system if you are subject to the NSPS or elect to comply with the NSPS opacity, CO, or SO_2 limits. Reports of performance evaluations must be submitted in Notification of Compliance Status.
§ 63.10(e)(3)	Excess Emissions/CMS Performance Reports.	No	Subpart UUU specifies the applicable requirements.
§ 63.10(e)(4)	COMS Data Reports	Yes.	
§ 63.10(f)	Recordkeeping/Reporting Waiver.	Yes.	
§ 63.11	Control Device Requirements.	Yes	Applicable to flares.
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by Reference	Yes.	
§ 63.15	Available of Information	Yes.	

■ 41. Subpart UUU of part 63 is amended by adding appendix A to read as follows:

Appendix A To Subpart UUU of Part 63—Determination of Metal Concentration on Catalyst Particles (Instrumental Analyzer Procedure)

1.0 Scope and Application.

1.1 Analytes. The analytes for which this method is applicable include any elements with an atomic number between 11 (sodium) and 92 (uranium), inclusive. Specific analytes for which this method was developed include:

Analyte	CAS No.	Minimum detectable limit
Nickel compounds	7440–02–0	<2 % of span.
Total chlorides	16887–00–6	<2 % of span.

1.2 Applicability. This method is applicable to the determination of analyte concentrations on catalyst particles. This method is applicable for catalyst particles obtained from the fluid catalytic cracking unit (FCCU) regenerator (*i.e.*, equilibrium catalyst), from air pollution control systems operated for the FCCU catalyst regenerator vent (FCCU fines), from catalytic reforming units (CRU), and other processes as specified within an applicable regulation. This method is applicable only when specified within the regulation.

1.3 Data Quality Objectives. Adherence to the requirements of this method will enhance the quality of the data obtained from the analytical method.

2.0 Summary of Method.

2.1 A representative sample of catalyst particles is collected, prepared, and analyzed for analyte concentration using either energy or wavelength dispersive X-ray flourescent (XRF) spectrometry instrumental analyzers. In both types of XRF spectrometers, the instrument irradiates the sample with high energy (primary) x-rays and the elements in

the sample absorb the x-rays and then re-emit secondary (fluorescent) x-rays of characteristic wavelengths for each element present. In energy dispersive XRF spectrometers, all secondary x-rays (of all wavelengths) enter the detector at once. The detector registers an electric current having a height proportional to the photon energy, and these pulses are then separated electronically, using a pulse analyzer. In wavelength dispersive XRF spectrometers, the secondary x-rays are dispersed spatially by crystal diffraction on the basis of wavelength. The crystal and detector are made to synchronously rotate and the detector then receives only one wavelength at a time. The intensity of the x-rays emitted by each element is proportional to its concentration, after correcting for matrix effects. For nickel compounds and total chlorides, the XRF instrument response is expected to be linear to analyte concentration. Performance specifications and test procedures are provided to ensure reliable data.

3.0 Definitions.

3.1 Measurement System. The total equipment required for the determination of analyte concentration. The measurement system consists of the following major subsystems:

3.1.1 Sample Preparation. That portion of a system used for one or more of the following: sample acquisition, sample transport, sample conditioning, or sample preparation prior to introducing the sample into the analyzer.

3.1.2 Analyzer. That portion of the system that senses the analyte to be measured and generates an output proportional to its concentration.

3.1.3 Data Recorder. A digital recorder or personal computer used for recording measurement data from the analyzer output.

3.2 Span. The upper limit of the gas concentration measurement range displayed on the data recorder.

3.3 Calibration Standards. Prepared catalyst samples or other samples of known analyte concentrations used to calibrate the analyzer and to assess calibration drift.

3.4 Energy Calibration Standard. Calibration standard, generally provided by the XRF instrument manufacturer, used for assuring accuracy of the energy scale.

3.5 Accuracy Assessment Standard. Prepared catalyst sample or other sample of known analyte concentrations used to assess analyzer accuracy error.

3.6 Zero Drift. The difference in the measurement system output reading from the initial value for zero concentration level calibration standard after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.

3.7 Calibration Drift. The difference in the measurement system output reading from the initial value for the mid-range calibration standard after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.

3.8 Spectral Interferences. Analytical interferences and excessive biases caused by elemental peak overlap, escape peak, and sum peak interferences between elements in the samples.

3.9 Calibration Curve. A graph or other systematic method of establishing the relationship between the analyzer response and the actual analyte concentration introduced to the analyzer.

3.10 Analyzer Accuracy Error. The difference in the measurement system output reading and the ideal value for the accuracy assessment standard.

4.0 Interferences.

4.1 Spectral interferences with analyte line intensity determination are accounted for within the method program. No action is required by the XRF operator once these interferences have been addressed within the method.

4.2 The X-ray production efficiency is affected by particle size for the very lightest elements. However, particulate matter (PM) 2.5 particle size effects are substantially < 1 percent for most elements. The calibration standards should be prepared with material of similar particle size or be processed (ground) to produce material of similar particle size as the catalyst samples to be analyzed. No additional correction for particle size is performed. Alternatively, the sample can be fused in order to eliminate any potential particle size effects.

5.0 Safety.

5.1 Disclaimer. This method may involve hazardous materials, operations, and equipment. This test method may not address all of the safety problems associated with its use. It is the responsibility of the user of this test method to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to performing this test method.

5.2 X-ray Exposure. The XRF uses X-rays; XRF operators should follow instrument manufacturer's guidelines to protect from accidental exposure to X-rays when the instrument is in operation.

5.3 Beryllium Window. In most XRF units, a beryllium (Be) window is present to separate the sample chamber from the X-ray tube and detector. The window is very fragile and brittle. Do not allow sample or debris to fall onto the window, and avoid using compressed air to clean the window because it will cause the window to rupture. If the window should rupture, note that Be metal is poisonous. Use extreme caution when collecting pieces of Be and consult the instrument manufacturer for advice on cleanup of the broken window and replacement.

6.0 Equipment and Supplies.

6.1 Measurement System. Use any measurement system that meets the specifications of this method listed in section 13. The typical components of the measurement system are described below.

6.1.1 Sample Mixer/Mill. Stainless steel, or equivalent to grind/mix catalyst and binders, if used, to produce uniform particle samples.

6.1.2 Sample Press/Fluxer. Stainless steel, or equivalent to produce pellets of sufficient size to fill analyzer sample window, or alternatively, a fusion device capable of preparing a fused disk of sufficient size to fill analyzer sample window.

6.1.3 Analytical Balance. ±0.0001 gram accuracy for weighing prepared samples (pellets).

6.1.4 Analyzer. An XRF spectrometer to determine the analyte concentration in the prepared sample. The analyzer must meet the applicable performance specifications in section 13.

6.1.5 Data Recorder. A digital recorder or personal computer for recording measurement data. The data recorder resolution (*i.e.*, readability) must be 0.5 percent of span. Alternatively, a digital or analog meter having a resolution of 0.5 percent of span may be used to obtain the analyzer responses and the readings may be recorded manually.

7.0 Reagents and Standards.

7.1 Calibration Standards. The calibration standards for the analyzer must be prepared catalyst samples or other material of similar particle size and matrix as the catalyst samples to be tested that have known concentrations of the analytes of interest. Preparation (grinding/milling/fusion) of the calibration standards should follow the same processes used to prepare the catalyst samples to be tested. The calibration standards values must be established as the average of a minimum of three analyses using an approved EPA or ASTM method with instrument analyzer calibrations traceable to the U.S. National Institute of Standards and Technology (NIST), if available. The maximum percent deviation of the triplicate calibration standard analyses should agree within 10 percent of the average value for the triplicate analysis (see Figure 1). If the calibration analyses do not meet this criteria, the calibration standards must be re-analyzed. If unacceptable variability persists, new calibration standards must be prepared. Approved methods for the calibration standard analyses include, but are not limited to, EPA Methods 6010B, 6020, 7520, or 7521 of SW–846.[1] Use a minimum of four calibration standards as specified below (see Figure 1):

7.1.1 High-Range Calibration Standard. Concentration equivalent to 80 to 100 percent of the span. The concentration of the high-range calibration standard should exceed the maximum concentration anticipated in the catalyst samples.

7.1.2 Mid-Range Calibration Standard. Concentration equivalent to 40 to 60 percent of the span.

7.1.3 Low-Range Calibration Standard. Concentration equivalent to 1 to 20 percent of the span. The concentration of the low-range calibration standard should be selected so that it is less than either one-forth of the applicable concentration limit or of the lowest concentration anticipated in the catalyst samples.

7.1.4 Zero Calibration Standard. Concentration of less than 0.25 percent of the span.

7.2 Accuracy Assessment Standard. Prepare an accuracy assessment standard and determine the ideal value for the accuracy assessment standard following the same procedures used to prepare and analyze the

calibration standards as described in section 7.1. The maximum percent deviation of the triplicate accuracy assessment standard analyses should agree within 10 percent of the average value for the triplicate analysis (see Figure 1). The concentration equivalent of the accuracy assessment standard must be between 20 and 80 percent of the span.

7.3 Energy Calibration Standard. Generally, the energy calibration standard will be provided by the XRF instrument manufacturer for energy dispersive spectrometers. Energy calibration is performed using the manufacturer's recommended calibration standard and involves measurement of a specific energy line (based on the metal in the energy calibration standard). This is generally an automated procedure used to assure the accuracy of the energy scale. This calibration standard may not be applicable to all models of XRF spectrometers (particularly wavelength dispersive XRF spectrometers).

8.0 Sample Collection, Preservation, Transport, and Storage. [Reserved]

9.0 Quality Control.

9.1 Energy Calibration. For energy dispersive spectrometers, conduct the energy calibration by analyzing the energy calibration standard provided by the manufacturer. The energy calibration involves measurement of a specific energy line (based on the metal in the energy calibration standard) and then determination of the difference between the measured peak energy value and the ideal value. This analysis, if applicable, should be performed daily prior to any sample analyses to check the instrument's energy scale. This is generally an automated procedure and assures the accuracy of the energy scale. If the energy scale calibration process is not automated, follow the manufacturer's procedures to manually adjust the instrument, as necessary.

9.2 Zero Drift Test. Conduct the zero drift test by analyzing the analyte concentration output by the measurement system with the initial calibration value for the zero calibration standard (see Figure 2). This analysis should be performed with each set of samples analyzed.

9.3 Calibration Drift Test. Conduct the calibration drift test by analyzing the analyte concentration output by the measurement system with the initial calibration value for the mid-range calibration standard (see Figure 2). This analysis should be performed with each set of samples analyzed.

9.4 Analyzer Accuracy Test. Conduct the analyzer accuracy test by analyzing the accuracy assessment standard and comparing the value output by the measurement system with the ideal value for the accuracy assessment standard (see Figure 2). This analysis should be performed with each set of samples analyzed.

10.0 Calibration and Standardization.

10.1 Perform the initial calibration and set-up following the instrument manufacturer's instructions. These procedures should include, at a minimum, the major steps listed in sections 10.2 and 10.3. Subsequent calibrations are to be performed when either a quality assurance/quality control (QA/QC) limit listed in section 13 is exceeded or when there is a change in the excitation conditions, such as a change in the tube, detector, X-ray filters, or signal processor. Calibrations are typically valid for 6 months to 1 year.

10.2 Instrument Calibration. Calibration is performed initially with calibration standards of similar matrix and binders, if used, as the samples to be analyzed (see Figure 1).

10.3 Reference Peak Spectra. Acquisition of reference spectra is required only during the initial calibration. As long as no processing methods have changed, these peak shape references remain valid. This procedure consists of placing the standards in the instrument and acquiring individual elemental spectra that are stored in the method file with each of the analytical conditions. These reference spectra are used in the standard deconvolution of the unknown spectra.

11.0 Analytical Procedure.

11.1 Sample Preparation. Prepare catalyst samples using the same procedure used to prepare the calibration standards. Measure and record the weight of sample used. Measure and record the amount of binder, if any, used. Pellets or films must be of sufficient size to cover the analyzer sample window.

11.2 Sample Analyses. Place the prepared catalyst samples into the analyzer. Follow the manufacturer's instructions for analyzing the samples.

11.3 Record and Store Data. Use a digital recorder or personal computer to record and store results for each sample. Record any mechanical or software problems encountered during the analysis.

12.0 Data Analysis and Calculations.

Carry out the following calculations, retaining at least one extra significant figure beyond that of the acquired data. Round off figures after final calculation.

12.1 Drift. Calculate the zero and calibration drift for the tests described in sections 9.2 and 9.3 (see also Figure 2) as follows:

$$\text{QC Value} = \frac{\text{CurrentAnalyzerCal.Response} - \text{InitialCal.Response}}{\text{Span}} \times 100 \qquad \text{(Eq. A-1)}$$

Where:
CurrentAnalyzerCal.Response = Instrument response for current QC sample analyses;
InitialCal.Response = Initial instrument response for calibration standard;
QC Value = QC metric (zero drift or calibration drift), percent of span;
Span = Span of the monitoring system.

12.2 Analyzer Accuracy. Calculate the analyzer accuracy error for the tests described in section 9.4 (see also Figure 2) as follows:

$$\text{Accuracy Value} = \frac{\text{CurrentAnalyzerCal.Response} - \text{IdealCal.Response}}{\text{IdealCal.Response}} \times 100 \qquad \text{(Eq. A-2)}$$

Where:
Accuracy Value = Percent difference of instrument response to the ideal response for the accuracy assessment standard;
CurrentAnalyzerCal.Response = Instrument response for current QC sample analyses;
IdealCal.Response = Ideal instrument response for the accuracy assessment standard.

13.0 Method Performance.

13.1 Analytical Range. The analytical range is determined by the instrument design. For this method, a portion of the analytical range is selected by choosing the span of the monitoring system. The span of the monitoring system must be selected such that it encompasses the range of concentrations anticipated to occur in the catalyst sample. If applicable, the span must be selected such that the analyte concentration equivalent to the emission standard is not less than 30 percent of the span. If the measured analyte concentration exceeds the concentration of the high-range calibration standard, the sample analysis is considered invalid. Additionally, if the measured analyte concentration is less than the concentration of the low-range calibration standard but above the detectable limit, the sample analysis results must be flagged with a footnote stating, in effect, that the analyte was detected but that the reported concentration is below the lower quantitation limit.

13.2 Minimum Detectable Limit. The minimum detectable limit depends on the signal-to-noise ratio of the measurement system. For a well-designed system, the minimum detectable limit should be less than 2 percent of the span.

13.3 Zero Drift. Less than ±2 percent of the span.

13.4 Calibration Drift. Less than ±5 percent of the span.

13.5 Analyzer Accuracy Error. Less than ±10 percent.

14.0 Pollution Prevention. [Reserved]

15.0 Waste Management. [Reserved]

16.0 Alternative Procedures. [Reserved]

17.0 References.

1. U.S. Environmental Protection Agency. 1998. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. EPA Publication No. SW–846, Revision 5 (April 1998). Office of Solid Waste, Washington, DC.

18.0 Tables, Diagrams, Flowcharts, and Validation Data.

Date:					
Analytic Method Used:					
	Zero [a]	Low-Range [b]	Mid-Range [c]	High-Range [d]	Accuracy Std [e]
Sample Run:. 1. 2. 3. Average. Maximum Percent Deviation.					

[a] Average must be less than 0.25 percent of span.
[b] Average must be 1 to 20 percent of span.
[c] Average must be 40 to 60 percent of span.
[d] Average must be 80 to 100 percent of span.
[e] Average must be 20 to 80 percent of span.

Figure 1. Data Recording Sheet for Analysis of Calibration Samples.

Source Identification:
Run Number:
Test Personnel:
Span:
Date:

	Initial calibration response	Current analyzer calibration response	Drift (percent of span)
Zero Standard. Mid-range Standard.			
	Ideal calibration response	**Current analyzer calibration response**	**Accuracy error (percent of ideal)**
Accuracy Standard.			

Figure 2. Data Recording Sheet for System Calibration Drift Data.

[FR Doc. 05–2308 Filed 2–8–05; 8:45 am]

BILLING CODE 6560–50–P