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

06/29/06 **CERTIFIED MAIL**

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

07-44-00-0029
The Dow Chemical Company - Hanging Rock
Troy Dehoff
925 County Road 1A
Ironton, OH 45638-8687

Dear Troy Dehoff:

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 Portsmouth Air Pollution Group.

Sincerely,

Michael W. Ahern

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

cc: Portsmouth Air Pollution Group
File, DAPC PIER

State of Ohio Environmental Protection Agency

# FINAL TITLE V MINOR PERMIT MODIFICATION

| Original Effective Date: 02/12/04 | Expiration Date: 02/12/09 | Modification Effective Date: 06/29/06 |
|---|---|---|

This document constitutes issuance of a Title V permit for Facility ID: 07-44-00-0029 to:
*The duration of this permit will be five years.*

The Dow Chemical Company - Hanging Rock
925 County Road 1A
Ironton, OH 45638-8687

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

B010 (Dowtherm Boiler R-1)
Dowtherm Boiler R-1 (StyronTM)

B020 (Dowtherm Boiler R-3)
Dowtherm Boiler R-3 (StyronTM)

F001 (Fugitive Dust-Roads)
Fugitive Dust - Plant Roadways & Parking Areas

P002 (Dow Polystyrene Polymerization Process - Train #1)
Process which produces Polystyrene (StyronTM)

P003 (Performance Foams Plant - line #1
)
Performance Foams Manufacturing Process - Line 1

P009 (Line 1 M/L Plstcs Pro)
Raw materials are processed to form Expanded Polystyrene Foam

P010 (Dow Polystyrene Polymerization Process - Train #2)
Process which produces polystyrene copolymers (StyronTM)

P014 (Performance Foams Plant - line #3
)
Performance Foams Manufacturing Process - Line 3

P015 (Polystyrene Recycle Processing Unit)
Recycles Polystyrene. Lines 1 & 2 Polstyrene Recycling Unit.

P017 (Performance Foams Primary Curing Warehouse #1)
Performance Foams Primary Curing Warehouse #1, controlled by Thermal Oxidizer

P018 (Performance Foams Primary Curing Warehouse #2)
Performance Foams Primary Curing Warehouse #2, controlled by Thermal Oxidizer

P019 (Performance Foams Product Storage Warehouse #1)
Performance Foams Product Storage Warehouse #1

P020 (Performance Foams Product Storage Warehouse #2)
Performance Foams Product Storage Warehouse #2

P021 (Performance Foams Product Storage Warehouse #3)
Performance Foams Product Storage Warehouse #3

P022 (Performance Foams Line #2)
Performance Foams Line #2, controlled by Thermal Oxidizer

P023 (Performance Foams Recycle Line)
Performance Foams Recycle Line

T003 (Acrylonitrile Storage Tank)
Acrylonitrile Storage Tank (Styron TM) - 110,000 gallons pressurized storage tank

T004 (Marine Styrene Storage Tank B-1)
Marine Styrene Storage Tank B-1(StyronTM) - 750,000 gallons fixed roof storage tank

T005 (Marine Styrene Storage Tank B-2)
Marine Styrene Storage Tank B-2 (StyronTM) - 750,000 gallons fixed roof storage tank

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:

Portsmouth Air Pollution Group
605 Washington Street, Third Floor
Portsmouth, OH 45662
(740) 353-5156

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

### I. Requirements of 40 CFR Part 63, Subpart EEE

**[63.1200]**
**Who is subject to these regulations?**

The provisions of this subpart apply to all hazardous waste combustors: hazardous waste incinerators, hazardous waste cement kilns, hazardous waste lightweight aggregate kilns, hazardous waste solid fuel boilers, hazardous waste liquid fuel boilers, and hazardous waste hydrochloric acid production furnaces. Hazardous waste combustors are also subject to applicable requirements under parts 260 through 270 of this chapter.

(a) What if I am an area source? (1) Both area sources and major sources are subject to this subpart.

(2) Both area sources and major sources subject to this subpart, but not previously subject to title V, are immediately subject to the requirement to apply for and obtain a title V permit in all States, and in areas covered by part 71 of this chapter.

(b) These regulations in this subpart do not apply to sources that meet the criteria in Table 1 of this Section, as follows:

Table 1 to § 63.1200_Hazardous Waste Combustors Exempt From Subpart EEE

| If | And if | Then |
|---|---|---|
| (1) You are a previously affected source. | (i) You ceased feeding hazardous waste for a period of time greater than the hazardous waste residence time (i.e., hazardous waste no longer resides in the combustion chamber);.<br>(ii) You have initiated the closure requirements of subpart G, parts 264 or 265 of this chapter;.<br>(iii) You begin complying with the | You are no longer subject to this subpart (Subpart EEE). |

| | | |
|---|---|---|
| | requirements of all other applicable standards of this part (Part 63); and. (iv) You notify the Administrator in writing that you are no longer an affected source under this subpart (Subpart EEE). | |
| (2) You are a research, development, and demonstration source. | You operate for no longer than one year after first burning hazardous waste (Note that the Administrator can extend this one-year restriction on a case-by-case basis upon your written request documenting when you first burned hazardous waste and the justification for needing additional time to perform research, development, or demonstration operations).. | You are not subject to this subpart (Subpart EEE). This exemption applies even if there is a hazardous waste combustor at the plant site that is regulated under this subpart. You still, however, remain subject to § 270.65 of this chapter. |
| (3) The only hazardous wastes you burn are exempt from regulation under § 266.100(c) of this chapter. | ..... | You are not subject to the requirements of this subpart (Subpart EEE). |
| (4) You meet the definition of a small quantity burner under § 266.108 of this chapter. | ..... | You are not subject to the requirements of this subpart (Subpart EEE). |

(c) Table 1 of this section specifies the provisions of subpart A (General Provisions, §§63.1–63.15) that apply and those that do not apply to sources affected by this subpart.

**[63.1201]**

**Definitions and acronyms used in this subpart.**

(a) The terms used in this subpart are defined in the Act, in subpart A of this part, or in this section as follows:

*Air pollution control system* means the equipment used to reduce the release of particulate matter and other pollutants to the atmosphere.

*Automatic waste feed cutoff (AWFCO) system* means a system comprised of cutoff valves, actuator, sensor, data manager, and other necessary components and electrical circuitry designed, operated and maintained to stop the flow of hazardous waste to the combustion unit automatically and immediately (except as provided by §63.1206(c)(3)(viii)) when any operating requirement is exceeded.

*Btu* means British Thermal Units.

*By-pass duct* means a device which diverts a minimum of 10 percent of a cement kiln's off gas, or a device which the Administrator determines on a case-by-case basis diverts a sample of kiln gas that contains levels of carbon monoxide or hydrocarbons representative of the levels in the kiln.

*Combustion chamber* means the area in which controlled flame combustion of hazardous waste occurs.

*Continuous monitor* means a device which continuously samples the regulated parameter specified in §63.1209 without interruption, evaluates the detector response at least once every 15 seconds, and computes and records the average value at least every 60 seconds, except during allowable periods of calibration and except as defined otherwise by the CEMS Performance Specifications in appendix B, part 60 of this chapter.

*Dioxin/furan and dioxins and furans* mean tetra-, penta-, hexa-, hepta-, and octa-chlorinated dibenzo dioxins and furans.

*Existing source* means any affected source that is not a new source.

*Feedrate operating limits* means limits on the feedrate of materials (e.g., metals, chlorine) to the combustor that are established based on comprehensive performance testing. The limits are established and monitored by knowing the concentration of the limited material (e.g., chlorine) in each feedstream and the flowrate of each feedstream.

*Feedstream* means any material fed into a hazardous waste combustor, including, but not limited to, any pumpable or nonpumpable solid, liquid, or gas.

*Flowrate* means the rate at which a feedstream is fed into a hazardous waste combustor.

*Hazardous waste* is defined in §261.3 of this chapter.

*Hazardous waste burning cement kiln* means a rotary kiln and any associated preheater or precalciner devices that produce clinker by heating limestone and other materials for subsequent production of cement for use in commerce, and that burns hazardous waste at any time.

*Hazardous waste combustor* means a hazardous waste incinerator, hazardous waste burning cement kiln, hazardous waste burning lightweight aggregate kiln, hazardous waste liquid fuel boiler, hazardous waste solid fuel boiler, or hazardous waste hydrochloric acid production furnace.

*Hazardous waste hydrochloric acid production furnace and Hazardous Waste HCl production furnace* mean a halogen acid furnace defined under §260.10 of this chapter that produces aqueous hydrochloric acid (HCl) product and that burns hazardous waste at any time.

*Hazardous waste incinerator* means a device defined as an incinerator in §260.10 of this chapter and that burns hazardous waste at any time. For purposes of this subpart, the hazardous waste incinerator includes all associated firing systems and air pollution control devices, as well as the combustion chamber equipment.

*Hazardous waste lightweight aggregate kiln* means a rotary kiln that produces clinker by heating materials such as slate, shale and clay for subsequent production of lightweight aggregate used in commerce, and that burns hazardous waste at any time.

*Hazardous waste liquid fuel boiler* means a boiler defined under §260.10 of this chapter that does not burn solid fuels and that burns hazardous waste at any time. Liquid fuel boiler includes boilers that only burn gaseous fuel.

*Hazardous waste residence time* means the time elapsed from cutoff of the flow of hazardous waste into the combustor (including, for example, the time required for liquids to flow from the cutoff valve into the combustor) until solid, liquid, and gaseous materials from the hazardous waste (excluding residues that may adhere to combustion chamber surfaces and excluding waste-derived recycled materials such as cement kiln dust and internally recycled metals) exit the combustion chamber. For combustors with multiple firing systems whereby the residence time may vary for the firing systems, the hazardous waste residence time for purposes of complying with this subpart means the longest residence time for any firing system in use at the time of the waste cutoff.

*Hazardous waste solid fuel boiler* means a boiler defined under §260.10 of this chapter that burns a solid fuel and that burns hazardous waste at any time.

*Initial comprehensive performance test* means the comprehensive performance test that is used as the basis for initially demonstrating compliance with the standards.

*In-line kiln raw mill* means a hazardous waste burning cement kiln design whereby kiln gas is ducted through the raw material mill for portions of time to facilitate drying and heating of the raw material.

*Instantaneous monitoring* for combustion system leak control means detecting and recording pressure, without use of an averaging period, at a frequency adequate to detect combustion system leak events from hazardous waste combustion.

*Monovent* means an exhaust configuration of a building or emission control device (*e.g.* positive pressure fabric filter) that extends the length of the structure and has a width very small in relation to its length (*i.e.,* length to width ratio is typically greater than 5:1). The exhaust may be an open vent with or without a roof, louvered vents, or a combination of such features.

*MTEC* means maximum theoretical emissions concentration of metals or HCl/Cl, expressed as Fg/dscm, and is calculated by dividing the feedrate by the gas flowrate.

*New source* means any affected source the construction or reconstruction of which is commenced after the dates specified under §§63.1206(a)(1)(i)(B), (a)(1)(ii)(B), and (a)(2)(ii).

*One-minute average* means the average of detector responses calculated at least every 60 seconds from responses obtained at least every 15 seconds.

*Operating record* means a documentation retained at the facility for ready inspection by authorized officials of all information required by the standards to document and maintain compliance with the applicable regulations, including data and information, reports, notifications, and communications with regulatory officials.

*Operating requirements* means operating terms or conditions, limits, or operating parameter limits developed under this subpart that ensure compliance with the emission standards.

*Preheater tower combustion gas monitoring location* means a location within the preheater tower of a dry process cement kiln downstream (in terms of gas flow) of all hazardous waste firing locations and where a representative sample of combustion gas to measure combustion efficiency can be monitored.

*Raw material feed* means the prepared and mixed materials, which include but are not limited to materials such as limestone, clay, shale, sand, iron ore, mill scale, cement kiln dust and flyash, that are fed to a cement or lightweight aggregate kiln. Raw material feed does not include the fuels used in the kiln to produce heat to form the clinker product.

*Research, development, and demonstration source* means a source engaged in laboratory, pilot plant, or prototype demonstration operations:

(1) Whose primary purpose is to conduct research, development, or short-term demonstration of an innovative and experimental hazardous waste treatment technology or process; and

(2) Where the operations are under the close supervision of technically-trained personnel.

*Rolling average* means the average of all one-minute averages over the averaging period.

*Run* means the net period of time during which an air emission sample is collected under a given set of operating conditions. Three or more runs constitutes a test. Unless otherwise specified, a run may be either intermittent or continuous.

*Run average* means the average of the one-minute average parameter values for a run.

*System removal efficiency* means [1 !- Emission Rate (mass/time) / Feedrate (mass/time)] X 100.

*TEQ* means the international method of expressing toxicity equivalents for dioxins and furans as defined in U.S. EPA, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989.

*You* means the owner or operator of a hazardous waste combustor.

(b) The acronyms used in this subpart refer to the following:

*AWFCO* means automatic waste feed cutoff.

*CAS* means chemical abstract services registry.

*CEMS* means continuous emissions monitoring system.

*CMS* means continuous monitoring system.

*DRE* means destruction and removal efficiency.

*MACT* means maximum achievable control technology.

*MTEC* means maximum theoretical emissions concentration.

*NIC* means notification of intent to comply.

**[63.1202]**

**Reserved**

**[63.1203]**

**What are the standards for hazardous waste incinerators that are effective until compliance with the standards under §63.1219?**

(a) *Emission limits for existing sources.* You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7 percent oxygen; or

(ii) Emissions in excess of 0.40 ng TEQ/dscm corrected to 7 percent oxygen provided that the combustion gas temperature at the inlet to the initial particulate matter control device is 400 EF or lower based on the average of the test run average temperatures. (For purposes of compliance, operation of a wet particulate control device is presumed to meet the 400 EF or lower requirement);

(2) Mercury in excess of 130 Fg/dscm corrected to 7 percent oxygen;

(3) Lead and cadmium in excess of 240 Fg/dscm, combined emissions, corrected to 7 percent oxygen;

(4) Arsenic, beryllium, and chromium in excess of 97 Fg/dscm, combined emissions, corrected to 7 percent oxygen;

(5) For carbon monoxide and hydrocarbons, either:

(i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (a)(5)(ii) of this section, you must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(ii) Hydrocarbons in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) Hydrochloric acid and chlorine gas in excess of 77 parts per million by volume, combined emissions, expressed as hydrochloric acid equivalents, dry basis and corrected to 7 percent oxygen; and

(7) Particulate matter in excess of 34 mg/dscm corrected to 7 percent oxygen.

(b) *Emission limits for new sources.* You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) Dioxins and furans in excess of 0.20 ng TEQ/dscm, corrected to 7 percent oxygen;

(2) Mercury in excess of 45 Fg/dscm corrected to 7 percent oxygen;

(3) Lead and cadmium in excess of 120 Fg/dscm, combined emissions, corrected to 7 percent oxygen;

(4) Arsenic, beryllium, and chromium in excess of 97 Fg/dscm, combined emissions, corrected to 7 percent oxygen;

(5) For carbon monoxide and hydrocarbons, either:

(i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (b)(5)(ii) of this section, you must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(ii) Hydrocarbons in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) Hydrochloric acid and chlorine gas in excess of 21 parts per million by volume, combined emissions, expressed as hydrochloric acid equivalents, dry basis and corrected to 7 percent oxygen; and

(7) Particulate matter in excess of 34 mg/dscm corrected to 7 percent oxygen.

(c) *Destruction and removal efficiency (DRE) standard.* (1) *99.99% DRE.* Except as provided in paragraph (c)(2) of this section, you must achieve a destruction and removal efficiency (DRE) of 99.99% for each principle organic hazardous constituent (POHC) designated under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$DRE = [1 ! -(W_{out} / W_{in})] \times 100\%$$

Where:

$W_{in}$ = mass feedrate of one principal organic hazardous constituent (POHC) in a waste feedstream; and

$W_{out}$ = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) *99.9999% DRE.* If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see §261.31 of this chapter), you must achieve a destruction and removal efficiency (DRE) of 99.9999% for each principle organic hazardous constituent (POHC) that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-*p*-dioxins and dibenzofurans. You must use the

equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) *Principal organic hazardous constituents (POHCs).* (i) You must treat the Principal Organic Hazardous Constituents (POHCs) in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) *Significant figures.* The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

**[63.1204]**

**What are the standards for hazardous waste burning cement kilns?**

(a) *Emission limits for existing sources.* You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7 percent oxygen; or

(ii) Emissions in excess of 0.40 ng TEQ/dscm corrected to 7 percent oxygen provided that the combustion gas temperature at the inlet to the initial dry particulate matter control device is 400 EF or lower based on the average of the test run average temperatures;

(2) Mercury in excess of 120 Fg/dscm corrected to 7 percent oxygen;

(3) Lead and cadmium in excess of 330 Fg/dscm, combined emissions, corrected to 7 percent oxygen;

(4) Arsenic, beryllium, and chromium in excess of 56 Fg/dscm, combined emissions, corrected to 7 percent oxygen;

(5) *Carbon monoxide and hydrocarbons.* (i) For kilns equipped with a by-pass duct or midkiln gas sampling system, either:

(A) Carbon monoxide in the by-pass duct or mid-kiln gas sampling system in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (a)(5)(i)(B) of this section, you must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons in the by-pass duct or mid-kiln gas sampling system do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(B) Hydrocarbons in the by-pass duct or midkiln gas sampling system in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane;

(ii) For kilns not equipped with a by-pass duct or midkiln gas sampling system, either:

(A) Hydrocarbons in the main stack in excess of 20 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(B) Carbon monoxide in the main stack in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (a)(5)(ii)(A) of this section, you also must document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons in the main stack do not exceed 20 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane.

(6) Hydrochloric acid and chlorine gas in excess of 130 parts per million by volume, combined emissions, expressed as hydrochloric acid equivalents, dry basis, corrected to 7 percent oxygen; and

(7) Particulate matter in excess of 0.15 kg/Mg dry feed and opacity greater than 20 percent.

(i) You must use suitable methods to determine the kiln raw material feedrate.

(ii) Except as provided in paragraph (a)(7)(iii) of this section, you must compute the particulate matter emission rate, E, from the following equation:

$$E=(C_s \times Q_{sd})/P$$

Where:

E=emission rate of particulate matter, kg/Mg of kiln raw material feed;

$C_s$=concentration of particulate matter, kg/dscm;

$Q_{sd}$=volumetric flowrate of effluent gas, dscm/hr; and

P=total kiln raw material feed (dry basis), Mg/hr.

(iii) If you operate a preheater or preheater/precalciner kiln with dual stacks, you must test simultaneously and compute the combined particulate matter emission rate, $E_c$, from the following equation:

$$E_c=(C_{sk} \times Q_{sdk}+C_{sb} \times Q_{sdb})/P$$

Where:

$E_c$=the combined emission rate of particulate matter from the kiln and bypass stack, kg/Mg of kiln raw material feed;

$C_{sk}$=concentration of particulate matter in the kiln effluent, kg/dscm;

$Q_{sdk}$=volumetric flowrate of kiln effluent gas, dscm/hr;

$C_{sb}$=concentration of particulate matter in the bypass stack effluent, kg/dscm;

$Q_{sdb}$=volumetric flowrate of bypass stack effluent gas, dscm/hr; and

P = total kiln raw material feed (dry basis), Mg/hr.

(b) *Emission limits for new sources.* You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7 percent oxygen; or

(ii) Emissions in excess of 0.40 ng TEQ/dscm corrected to 7 percent oxygen provided that the combustion gas temperature at the inlet to the initial dry particulate matter control device is 400 EF or lower based on the average of the test run average temperatures;

(2) Mercury in excess of 120 Fg/dscm corrected to 7 percent oxygen;

(3) Lead and cadmium in excess of 180 Fg/dscm, combined emissions, corrected to 7 percent oxygen;

(4) Arsenic, beryllium, and chromium in excess of 54 Fg/dscm, combined emissions, corrected to 7 percent oxygen;

(5) *Carbon monoxide and hydrocarbons.* (i) For kilns equipped with a by-pass duct or midkiln gas sampling system, carbon monoxide and hydrocarbons emissions are limited in both the bypass duct or midkiln gas sampling system and the main stack as follows:

(A) Emissions in the by-pass or midkiln gas sampling system are limited to either:

(*1*) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (b)(5)(i)(A)(*2*) of this section, you also must document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(*2*) Hydrocarbons in the by-pass duct or midkiln gas sampling system in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; and

(B) Hydrocarbons in the main stack are limited, if construction of the kiln commenced after April 19, 1996 at a plant site where a cement kiln (whether burning hazardous waste or not) did not previously exist, to 50 parts per million by volume, over a 30-day block average (monitored continuously with a continuous monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane.

(ii) For kilns not equipped with a by-pass duct or midkiln gas sampling system, hydrocarbons and carbon monoxide are limited in the main stack to either:

(A) Hydrocarbons not exceeding 20 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(B)(*1*) Carbon monoxide not exceeding 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen; and

(*2*) Hydrocarbons not exceeding 20 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane at any time during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7); and

(*3*) If construction of the kiln commenced after April 19, 1996 at a plant site where a cement kiln (whether burning hazardous waste or not) did not previously exist, hydrocarbons are limited to 50 parts per million by volume, over a 30-day block average (monitored continuously with a continuous monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane.

(6) Hydrochloric acid and chlorine gas in excess of 86 parts per million, combined emissions, expressed as hydrochloric acid equivalents, dry basis and corrected to 7 percent oxygen; and

(7) Particulate matter in excess of 0.15 kg/Mg dry feed and opacity greater than 20 percent.

(i) You must use suitable methods to determine the kiln raw material feedrate.

(ii) Except as provided in paragraph (a)(7)(iii) of this section, you must compute the particulate matter emission rate, E, from the equation specified in paragraph (a)(7)(ii) of this section.

(iii) If you operate a preheater or preheater/precalciner kiln with dual stacks, you must test simultaneously and compute the combined particulate matter emission rate, $E_c$, from the equation specified in paragraph (a)(7)(iii) of this section.

(c) *Destruction and removal efficiency (DRE) standard.* (1) *99.99% DRE.* Except as provided in paragraph (c)(2) of this section, you must achieve a destruction and removal efficiency (DRE) of 99.99% for each principle organic hazardous constituent (POHC) designated under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$DRE=[1 ! -(W_{out}/W_{in})]\times 100\%$$

Where:

$W_{in}$=mass feedrate of one principal organic hazardous constituent (POHC) in a waste feedstream; and

$W_{out}$=mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) *99.9999% DRE.* If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see §261.31 of this chapter), you must achieve a destruction and removal efficiency (DRE) of 99.9999% for each principle organic hazardous constituent (POHC) that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-*p*-dioxins and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) *Principal organic hazardous constituents (POHCs).* (i) You must treat the Principal Organic Hazardous Constituents (POHCs) in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) *Cement kilns with in-line kiln raw mills.* (1) *General.* (i) You must conduct performance testing when the raw mill is on-line and when the mill is off-line to demonstrate compliance with the emission standards, and you must establish separate operating parameter limits under §63.1209 for each mode of operation, except as provided by paragraph (d)(1)(iv) of this section.

(ii) You must document in the operating record each time you change from one mode of operation to the alternate mode and begin complying with the operating parameter limits for that alternate mode of operation.

(iii) You must calculate rolling averages for operating parameter limits as provided by §63.1209(q)(2).

(iv) If your in-line kiln raw mill has dual stacks, you may assume that the dioxin/furan emission levels in the by-pass stack and the operating parameter limits determined during performance testing of the by-pass stack when the raw mill is off-line are the same as when the mill is on-line.

(2) *Emissions averaging.* You may comply with the mercury, semivolatile metal, low volatile metal, and hydrochloric acid/chlorine gas emission standards on a time-weighted average basis under the following procedures:

(i) *Averaging methodology.* You must calculate the time-weighted average emission concentration with the following equation:

$$C_{total}=\{Cmill\text{-}off\times(Tmill\text{-}off/(Tmill\text{-}off+Tmill\text{-}on))\}+\{Cmill\text{-}on\times(Tmill\text{-}on/(Tmill\text{-}off+Tmill\text{-}on))\}$$

Where:

$C_{total}$=time-weighted average concentration of a regulated constituent considering both raw mill on time and off time;

Cmill-off=average performance test concentration of regulated constituent with the raw mill off-line;

Cmill-on=average performance test concentration of regulated constituent with the raw mill on-line;

Tmill-off=time when kiln gases are not routed through the raw mill; and

Tmill-on=time when kiln gases are routed through the raw mill.

(ii) *Compliance.* (A) If you use this emission averaging provision, you must document in the operating record compliance with the emission standards on an annual basis by using the equation provided by paragraph (d)(2) of this section.

(B) Compliance is based on one-year block averages beginning on the day you submit the initial notification of compliance.

(iii) *Notification.* (A) If you elect to document compliance with one or more emission standards using this emission averaging provision, you must notify the Administrator in the initial comprehensive performance test plan submitted under §63.1207(e).

(B) You must include historical raw mill operation data in the performance test plan to estimate future raw mill down-time and document in the performance test plan that estimated emissions and estimated raw mill down-time will not result in an exceedance of an emission standard on an annual basis.

(C) You must document in the notification of compliance submitted under §63.1207(j) that an emission standard will not be exceeded based on the documented emissions from the performance test and predicted raw mill down-time.

(e) *Preheater or preheater/precalciner kilns with dual stacks.* (1) *General.* You must conduct performance testing on each stack to demonstrate compliance with the emission standards, and you must establish operating parameter limits under §63.1209 for each stack, except as provided by paragraph (d)(1)(iv) of this section for dioxin/furan emissions testing and operating parameter limits for the by-pass stack of in-line raw mills.

(2) *Emissions averaging.* You may comply with the mercury, semivolatile metal, low volatile metal, and hydrochloric acid/chlorine gas emission standards specified in this section on a gas flowrate-weighted average basis under the following procedures:

(i) *Averaging methodology.* You must calculate the gas flowrate-weighted average emission concentration using the following equation:

$$C_{tot} = \{C_{main} \times (Q_{main} /(Q_{main} + Q_{bypass}))\} + \{C_{bypass} \times (Q_{bypass} / (Q_{main} + Q_{bypass}))\}$$

Where:

$C_{tot}$ = gas flowrate-weighted average concentration of the regulated constituent;

$C_{main}$ = average performance test concentration demonstrated in the main stack;

$C_{bypass}$ = average performance test concentration demonstrated in the bypass stack;

$Q_{main}$ = volumetric flowrate of main stack effluent gas; and

$Q_{bypass}$ = volumetric flowrate of bypass effluent gas.

(ii) *Compliance.* (A) You must demonstrate compliance with the emission standard(s) using the emission concentrations determined from the performance tests and the equation provided by paragraph (e)(1) of this section; and

(B) You must develop operating parameter limits for bypass stack and main stack flowrates that ensure the emission concentrations calculated with the equation in paragraph (e)(1) of this section do not exceed the emission standards on a 12-hour rolling average basis. You must include these flowrate limits in the Notification of Compliance.

(iii) *Notification.* If you elect to document compliance under this emissions averaging provision, you must:

(A) Notify the Administrator in the initial comprehensive performance test plan submitted under §63.1207(e). The performance test plan must include, at a minimum, information describing the flowrate limits established under paragraph (e)(2)(ii)(B) of this section; and

(B) Document in the Notification of Compliance submitted under §63.1207(j) the demonstrated gas flowrate-weighted average emissions that you calculate with the equation provided by paragraph (e)(2) of this section.

(f) *Significant figures.* The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

(g) [Reserved]

(h) When you comply with the particulate matter requirements of paragraphs (a)(7) or (b)(7) of this section, you are exempt from the New Source Performance Standard for particulate matter and opacity under §60.60 of this chapter.

**[63.1205]**

**What are the standards for hazardous waste burning lightweight aggregate kilns?**

(a) *Emission limits for existing sources.* You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7 percent oxygen; or

(ii) Rapid quench of the combustion gas temperature at the exit of the (last) combustion chamber (or exit of any waste heat recovery system) to 400 EF or lower based on the average of the test run average temperatures. You must also notify in writing the RCRA authority that you are complying with this option;

(2) Mercury in excess of 120 Fg/dscm corrected to 7 percent oxygen;

(3) Lead and cadmium in excess of 250 Fg/dscm, combined emissions, corrected to 7 percent oxygen;

(4) Arsenic, beryllium, and chromium in excess of 110 Fg/dscm, combined emissions, corrected to 7 percent oxygen;

(5) *Carbon monoxide and hydrocarbons.* (i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (a)(5)(ii) of this section, you also must document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 20 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(ii) Hydrocarbons in excess of 20 parts per million by volume, over an hourly rolling average, dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) Hydrochloric acid and chlorine gas in excess of 600 parts per million by volume, combined emissions, expressed as hydrochloric acid equivalents, dry basis and corrected to 7 percent oxygen; and

(7) Particulate matter in excess of 57 mg/dscm corrected to 7 percent oxygen.

(b) *Emission limits for new sources.* You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7 percent oxygen; or

(ii) Rapid quench of the combustion gas temperature at the exit of the (last) combustion chamber (or exit of any waste heat recovery system) to 400 EF or lower based on the average of the test run average temperatures. You must also notify in writing the RCRA authority that you are complying with this option;

(2) Mercury in excess of 120 Fg/dscm corrected to 7 percent oxygen;

(3) Lead and cadmium in excess of 43 Fg/dscm, combined emissions, corrected to 7 percent oxygen;

(4) Arsenic, beryllium, and chromium in excess of 110 Fg/dscm, combined emissions, corrected to 7 percent oxygen;

(5) *Carbon monoxide and hydrocarbons.* (i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (b)(5)(ii) of this section, you also must document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 20 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(ii) Hydrocarbons in excess of 20 parts per million by volume, over an hourly rolling average, dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) Hydrochloric acid and chlorine gas in excess of 600 parts per million by volume, combined emissions, expressed as hydrochloric acid equivalents, dry basis and corrected to 7 percent oxygen; and

(7) Particulate matter in excess of 57 mg/dscm corrected to 7 percent oxygen.

(c) *Destruction and removal efficiency (DRE) standard.* (1) *99.99% DRE.* Except as provided in paragraph (c)(2) of this section, you must achieve a destruction and removal efficiency (DRE) of 99.99% for each principal organic hazardous constituent (POHC) designated under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$DRE = [1—(W_{out} / W_{in})] \times 100\%$$

Where:

$W_{in}$ = mass feedrate of one principal organic hazardous constituent (POHC) in a waste feedstream; and

$W_{out}$ = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) *99.9999% DRE.* If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see §261.31 of this chapter), you must achieve a destruction and removal efficiency (DRE) of 99.9999% for each principal organic hazardous constituent (POHC) that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-dioxins and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to burn hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) *Principal organic hazardous constituents (POHCs).* (i) You must treat the Principal Organic Hazardous Constituents (POHCs) in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) *Significant figures.* The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

**[63.1206[**

**When and how must you comply with the standards and operating requirements?**

(a) *Compliance dates.* (1) *Compliance dates for incinerators, cement kilns, and lightweight aggregate kilns that burn hazardous waste.* (i) *Compliance date for standards under §§63.1203, 63.1204, and 63.1205.* (A) *Compliance dates for existing sources.* You must comply with the emission standards under §§63.1203, 63.1204, and 63.1205 and the other requirements of this subpart no later than the compliance date, September 30, 2003, unless the Administrator grants you an extension of time under §63.6(i) or §63.1213, except:

(*1*) Cement kilns are exempt from the bag leak detection system requirements under paragraph (c)(8) of this section;

(*2*) The bag leak detection system required under §63.1206(c)(8) must be capable of continuously detecting and recording particulate matter emissions at concentrations of 1.0 milligram per actual cubic meter unless you demonstrate under §63.1209(g)(1) that a higher detection limit would adequately detect bag leaks, in lieu of the requirement for the higher detection limit under paragraph (c)(8)(ii)(A) of this section; and

(*3*) The excessive exceedances notification requirements for bag leak detection systems under paragraph (c)(8)(iv) of this section are waived.

(B) *New or reconstructed sources.* (*1*) If you commenced construction or reconstruction of your hazardous waste combustor after April 19, 1996, you must comply with the emission standards under §§63.1203, 63.1204, and 63.1205 and the other requirements of this subpart by the later of September 30, 1999 or the date the source starts operations, except as provided by paragraphs (a)(1)(i)(A)(*1*) through (*3*) and (a)(1)(i)(B)(*2*) of this section. The costs of retrofitting and replacement of equipment that is installed

specifically to comply with this subpart, between April 19, 1996 and a source's compliance date, are not considered to be reconstruction costs.

(*2*) For a standard under §§63.1203, 63.1204, and 63.1205 that is more stringent than the standard proposed on April 19, 1996, you may achieve compliance no later than September 30, 2003 if you comply with the standard proposed on April 19, 1996 after September 30, 1999. This exception does not apply, however, to new or reconstructed area source hazardous waste combustors that become major sources after September 30, 1999. As provided by §63.6(b)(7), such sources must comply with the standards under §§63.1203, 63.1204, and 63.1205 at startup.

(ii) *Compliance date for standards under §§63.1219, 63.1220, and 63.1221.* (A) *Compliance dates for existing sources.* You must comply with the emission standards under §§63.1219, 63.1220, and 63.1221 and the other requirements of this subpart no later than the compliance date, October 14, 2008, unless the Administrator grants you an extension of time under §63.6(i) or §63.1213.

(B) *New or reconstructed sources.* (*1*) If you commenced construction or reconstruction of your hazardous waste combustor after April 20, 2004, you must comply with the new source emission standards under §§63.1219, 63.1220, and 63.1221 and the other requirements of this subpart by the later of October 12, 2005 or the date the source starts operations, except as provided by paragraph (a)(1)(ii)(B)(*2*) of this section. The costs of retrofitting and replacement of equipment that is installed specifically to comply with this subpart, between April 20, 2004, and a source's compliance date, are not considered to be reconstruction costs.

(*2*) For a standard under §§63.1219, 63.1220, and 63.1221 that is more stringent than the standard proposed on April 20, 2004, you may achieve compliance no later than October 14, 2008, if you comply with the standard proposed on April 20, 2004, after October 12, 2005. This exception does not apply, however, to new or reconstructed area source hazardous waste combustors that become major sources after October 14, 2008. As provided by §63.6(b)(7), such sources must comply with the standards under §§63.1219, 63.1220, and 63.1221 at startup.

(2) *Compliance dates for solid fuel boilers, liquid fuel boilers, and hydrogen chloride production furnaces that burn hazardous waste for standards under §§63.1216, 63.1217, and 63.1218*. (i) *Compliance date for existing sources.* You must comply with the standards of this subpart no later than the compliance date, October 14, 2008, unless the Administrator grants you an extension of time under §63.6(i) or §63.1213.

(ii) *New or reconstructed sources*. (A) If you commenced construction or reconstruction of your hazardous waste combustor after October 12, 2005, you must comply with the new source emission standards of this subpart by the later of October 12, 2005, or the date the source starts operations, except as provided by paragraph (a)(2)(ii)(B) of this section. The costs of retrofitting and replacement of equipment that is installed specifically to comply with this subpart, between April 20, 2004, and a source's compliance date, are not considered to be reconstruction costs.

(B) For a standard in the subpart that is more stringent than the standard proposed on April 20, 2004, you may achieve compliance no later than October 14, 2008, if you comply with the standard proposed on April 20, 2004, after October 12, 2005. This exception does not apply, however, to new or reconstructed area source hazardous waste combustors that become major sources after October 14, 2008. As provided by §63.6(b)(7), such sources must comply with this subpart at startup.

(3) *Early compliance.* If you choose to comply with the emission standards of this subpart prior to the dates specified in paragraphs (a)(1) and (a)(2) of this section, your compliance date is the earlier of the date you postmark the Notification of Compliance under §63.1207(j)(1) or the dates specified in paragraphs (a)(1) and (a)(2) of this section.

(b) *Compliance with standards*—(1) *Applicability.* The emission standards and operating requirements set forth in this subpart apply at all times except:

(i) During periods of startup, shutdown, and malfunction; and

(ii) When hazardous waste is not in the combustion chamber (i.e., the hazardous waste feed to the combustor has been cut off for a period of time not less than the hazardous waste residence time) and you have documented in the operating record that you are complying with all otherwise applicable requirements and standards promulgated under authority of sections 112 (e.g., 40 CFR part 63, subparts LLL, DDDDD, and NNNNN) or 129 of the Clean Air Act in lieu of the emission standards under §§63.1203, 63.1204, 63.1205, 63.1215, 63.1216, 63.1217, 63.1218, 63.1219, 63.1220, and 63.1221; the monitoring and compliance standards of this section and §§63.1207 through 63.1209, except the modes of operation requirements of §63.1209(q); and the notification, reporting, and recordkeeping requirements of §§63.1210 through 63.1212.

(2) *Methods for determining compliance.* The Administrator will determine compliance with the emission standards of this subpart as provided by §63.6(f)(2). Conducting performance testing under operating conditions representative of the extreme range of normal conditions is consistent with the requirements of §§63.6(f)(2)(iii)(B) and 63.7(e)(1) to conduct performance testing under representative operating conditions.

(3) *Finding of compliance.* The Administrator will make a finding concerning compliance with the emission standards and other requirements of this subpart as provided by §63.6(f)(3).

(4) *Extension of compliance with emission standards.* The Administrator may grant an extension of compliance with the emission standards of this subpart as provided by §§63.6(i) and 63.1213.

(5) *Changes in design, operation, or maintenance*—(i) *Changes that may adversely affect compliance.* If you plan to change (as defined in paragraph (b)(5)(iii) of this section) the design, operation, or maintenance practices of the source in a manner that may adversely affect compliance with any emission standard that is not monitored with a CEMS:

(A) *Notification.* You must notify the Administrator at least 60 days prior to the change, unless you document circumstances that dictate that such prior notice is not reasonably feasible. The notification must include:

(*1*) A description of the changes and which emission standards may be affected; and

(*2*) A comprehensive performance test schedule and test plan under the requirements of §63.1207(f) that will document compliance with the affected emission standard(s);

(B) *Performance test.* You must conduct a comprehensive performance test under the requirements of §§63.1207(f)(1) and (g)(1) to document compliance with the affected emission standard(s) and establish operating parameter limits as required under §63.1209, and submit to the Administrator a Notification of Compliance under §§63.1207(j) and 63.1210(d); and

(C) *Restriction on waste burning.* (*1*) Except as provided by paragraph (b)(5)(i)(C)(*2*) of this section, after the change and prior to submitting the notification of compliance, you must not burn hazardous waste for more than a total of 720 hours (renewable at the discretion of the Administrator) and only for the purposes of pretesting or comprehensive performance testing. Pretesting is defined at §63.1207(h)(2)(i) and (ii).

(*2*) You may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. You must specify operating requirements, including limits on operating parameters, that you determine will ensure compliance with the emission standards of this subpart based on available information. The Administrator will review, modify as necessary, and approve if warranted the interim operating requirements.

(ii) *Changes that will not affect compliance.* If you determine that a change will not adversely affect compliance with the emission standards or operating requirements, you must document the change in the operating record upon making such change. You must revise as necessary the performance test plan,

Documentation of Compliance, Notification of Compliance, and start-up, shutdown, and malfunction plan to reflect these changes.

(iii) *Definition of "change."* For purposes of paragraph (b)(5) of this section, "change" means any change in design, operation, or maintenance practices that were documented in the comprehensive performance test plan, Notification of Compliance, or startup, shutdown, and malfunction plan.

(6) *Compliance with the carbon monoxide and hydrocarbon emission standards.* This paragraph applies to sources that elect to comply with the carbon monoxide and hydrocarbon emissions standards of this subpart by documenting continuous compliance with the carbon monoxide standard using a continuous emissions monitoring system and documenting compliance with the hydrocarbon standard during the destruction and removal efficiency (DRE) performance test or its equivalent.

(i) If a DRE test performed pursuant to §63.1207(c)(2) is acceptable as documentation of compliance with the DRE standard, you may use the highest hourly rolling average hydrocarbon level achieved during the DRE test runs to document compliance with the hydrocarbon standard. An acceptable DRE test is any test for which the data and results are determined to meet quality assurance objectives (on a site-specific basis) such that the results adequately demonstrate compliance with the DRE standard.

(ii) If during this acceptable DRE test you did not obtain hydrocarbon emissions data sufficient to document compliance with the hydrocarbon standard, you must either:

(A) Perform, as part of the performance test, an "equivalent DRE test" to document compliance with the hydrocarbon standard. An equivalent DRE test is comprised of a minimum of three runs each with a minimum duration of one hour during which you operate the combustor as close as reasonably possible to the operating parameter limits that you established based on the initial DRE test. You must use the highest hourly rolling average hydrocarbon emission level achieved during the equivalent DRE test to document compliance with the hydrocarbon standard; or

(B) Perform a DRE test as part of the performance test.

(7) *Compliance with the DRE standard.* (i) Except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section:

(A) You must document compliance with the Destruction and Removal Efficiency (DRE) standard under this subpart only once provided that you do not modify the source after the DRE test in a manner that could affect the ability of the source to achieve the DRE standard.

(B) You may use any DRE test data that documents that your source achieves the required level of DRE provided:

(*1*) You have not modified the design or operation of your source in a manner that could effect the ability of your source to achieve the DRE standard since the DRE test was performed; and,

(*2*) The DRE test data meet quality assurance objectives determined on a site-specific basis.

(ii) *Sources that feed hazardous waste at locations other than the normal flame zone.* (A) Except as provided by paragraph (b)(7)(ii)(B) of this section, if you feed hazardous waste at a location in the combustion system other than the normal flame zone, then you must demonstrate compliance with the DRE standard during each comprehensive performance test;

(B)(*1*) A cement kiln that feeds hazardous waste at a location other than the normal flame zone need only demonstrate compliance with the DRE standard during three consecutive comprehensive performance tests provided that:

(*i*) All three tests achieve the DRE standard in this subpart; and

(*ii*) The design, operation, and maintenance features of each of the three tests are similar;

(*iii*) The data in lieu restriction of §63.1207(c)(2)(iv) does not apply when complying with the provisions of paragraph (b)(7)(ii)(B) of this section;

(*2*) If at any time you change your design, operation, and maintenance features in a manner that could reasonably be expected to affect your ability to meet the DRE standard, then you must comply with the requirements of paragraph (b)(7)(ii)(A) of this section.

(iii) For sources that do not use DRE previous testing to document conformance with the DRE standard pursuant to §63.1207(c)(2), you must perform DRE testing during the initial comprehensive performance test.

(8) *Applicability of particulate matter and opacity standards during particulate matter CEMS correlation tests.* (i) Any particulate matter and opacity standards of parts 60, 61, 63, 264, 265, and 266 of this chapter (*i.e.,* any title 40 particulate or opacity standards) applicable to a hazardous waste combustor do not apply while you conduct particulate matter continuous emissions monitoring system (CEMS) correlation tests (*i.e.,* correlation with manual stack methods) under the conditions of paragraphs (b)(8)(iii) through (vii) of this section.

(ii) Any permit or other emissions or operating parameter limits or conditions, including any limitation on workplace practices, that are applicable to hazardous waste combustors to ensure compliance with any particulate matter and opacity standards of parts 60, 61, 63, 264, 265, and 266 of this chapter (*i.e.,* any title 40 particulate or opacity standards) do not apply while you conduct particulate matter CEMS correlation tests under the conditions of paragraphs (b)(8)(iii) through (vii) of this section.

(iii) For the provisions of this section to apply, you must:

(A) Develop a particulate matter CEMS correlation test plan that includes the following information. This test plan may be included as part of the comprehensive performance test plan required under §§63.1207(e) and (f):

(*1*) Number of test conditions and number of runs for each test condition;

(*2*) Target particulate matter emission level for each test condition;

(*3*) How you plan to modify operations to attain the desired particulate matter emission levels; and

(*4*) Anticipated normal particulate matter emission levels; and

(B) Submit the test plan to the Administrator for approval at least 90 calendar days before the correlation test is scheduled to be conducted.

(iv) The Administrator will review and approve/disapprove the correlation test plan under the procedures for review and approval of the site-specific test plan provided by §63.7(c)(3)(i) and (iii). If the Administrator fails to approve or disapprove the correlation test plan within the time period specified by §63.7(c)(3)(i), the plan is considered approved, unless the Administrator has requested additional information.

(v) The particulate matter and opacity standards and associated operating limits and conditions will not be waived for more than 96 hours, in the aggregate, for a correlation test, including all runs of all test conditions, unless more time is approved by the Administrator.

(vi) The stack sampling team must be on-site and prepared to perform correlation testing no later than 24 hours after you modify operations to attain the desired particulate matter emissions concentrations, unless you document in the correlation test plan that a longer period of conditioning is appropriate.

(vii) You must return to operating conditions indicative of compliance with the applicable particulate matter and opacity standards as soon as possible after correlation testing is completed.

(9) *Alternative standards for existing or new hazardous waste burning lightweight aggregate kilns using MACT.* (i) You may petition the Administrator to request alternative standards to the mercury or hydrogen chloride/chlorine gas emission standards of this subpart, to the semivolatile metals emission standards

under §§63.1205, 63.1221(a)(3)(ii), or 63.1221(b)(3)(ii), or to the low volatile metals emissions standards under §§63.1205, 63.1221(a)(4)(ii), or 63.1221(b)(4)(ii) if:

(A) You cannot achieve one or more of these standards while using maximum achievable control technology (MACT) because of raw material contributions to emissions of mercury, semivolatile metals, low volatile metals, or hydrogen chloride/chlorine gas; or

(B) You determine that mercury is not present at detectable levels in your raw material.

(ii) The alternative standard that you recommend under paragraph (b)(9)(i)(A) of this section may be an operating requirement, such as a hazardous waste feedrate limitation for metals and/or chlorine, and/or an emission limitation.

(iii) The alternative standard must include a requirement to use MACT, or better, applicable to the standard for which the source is seeking relief, as defined in paragraphs (b)(9)(viii) and (ix) of this section.

(iv) *Documentation required.* (A) The alternative standard petition you submit under paragraph (b)(9)(i)(A) of this section must include data or information documenting that raw material contributions to emissions prevent you from complying with the emission standard even though the source is using MACT, as defined under paragraphs (b)(9)(viii) and (ix) of this section, for the standard for which you are seeking relief.

(B) Alternative standard petitions that you submit under paragraph (b)(9)(i)(B) of this section must include data or information documenting that mercury is not present at detectable levels in raw materials.

(v) You must include data or information with semivolatile metal and low volatility metal alternative standard petitions that you submit under paragraph (b)(9)(i)(A) of this section documenting that increased chlorine feedrates associated with the burning of hazardous waste, when compared to non-hazardous waste operations, do not significantly increase metal emissions attributable to raw materials.

(vi) You must include data or information with semivolatile metals, low volatile metals, and hydrogen chloride/chlorine gas alternative standard petitions that you submit under paragraph (b)(9)(i)(A) of this section documenting that semivolatile metals, low volatile metals, and hydrogen chloride/chlorine gas emissions attributable to the hazardous waste only will not exceed the emission standards of this subpart.

(vii) You must not operate pursuant to your recommended alternative standards in lieu of emission standards specified in this subpart:

(A) Unless the Administrator approves the provisions of the alternative standard petition request or establishes other alternative standards; and

(B) Until you submit a revised Notification of Compliance that incorporates the revised standards.

(viii) For purposes of this alternative standard provision, MACT for existing hazardous waste burning lightweight aggregate kilns is defined as:

(A) For mercury, a hazardous waste feedrate corresponding to an MTEC of 24 Fg/dscm or less;

(B) For semivolatile metals, a hazardous waste feedrate corresponding to an MTEC of 280,000 Fg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 57 mg/dscm or less;

(C) For low volatile metals, a hazardous waste feedrate corresponding to an MTEC of 120,000 Fg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 57 mg/dscm or less; and

(D) For hydrogen chloride/chlorine gas, a hazardous waste chlorine feedrate corresponding to an MTEC of 2,000,000 µg/dscm or less, and use of an air pollution control device with a hydrogen chloride/chlorine gas removal efficiency of 85 percent or greater.

(ix) For purposes of this alternative standard provision, MACT for new hazardous waste burning lightweight aggregate kilns is defined as:

(A) For mercury, a hazardous waste feedrate corresponding to an MTEC of 4 Fg/dscm or less;

(B) For semivolatile metals, a hazardous waste feedrate corresponding to an MTEC of 280,000 Fg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 57 mg/dscm or less;

(C) For low volatile metals, a hazardous waste feedrate corresponding to an MTEC of 46,000 Fg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 57 mg/dscm or less;

(D) For hydrogen chloride/chlorine gas, a hazardous waste chlorine feedrate corresponding to an MTEC of 14,000,000 µg/dscm or less, and use of an air pollution control device with a hydrogen chloride/chlorine gas removal efficiency of 99.6 percent or greater.

(10) *Alternative standards for existing or new hazardous waste burning cement kilns using MACT.* (i) You may petition the Administrator to request alternative standards to the mercury or hydrogen chloride/chlorine gas emission standards of this subpart, to the semivolatile metals emission standards under §§63.1204, 63.1220(a)(3)(ii), or 63.1220(b)(3)(ii), or to the low volatile metals emissions standards under §§63.1204, 63.1220(a)(4)(ii), or 63.1220(b)(4)(ii) if:

(A) You cannot achieve one or more of these standards while using maximum achievable control technology (MACT) because of raw material contributions to emissions of mercury, semivolatile metals, low volatile metals, or hydrogen chloride/chlorine gas; or

(B) You determine that mercury is not present at detectable levels in your raw material.

(ii) The alternative standard that you recommend under paragraph (b)(10)(i)(A) of this section may be an operating requirement, such as a hazardous waste feedrate limitation for metals and/or chlorine, and/or an emission limitation.

(iii) The alternative standard must include a requirement to use MACT, or better, applicable to the standard for which the source is seeking relief, as defined in paragraphs (b)(10)(viii) and (ix) of this section.

(iv) *Documentation required.* (A) The alternative standard petition you submit under paragraph (b)(10)(i)(A) of this section must include data or information documenting that raw material contributions to emissions prevent you from complying with the emission standard even though the source is using MACT, as defined in paragraphs (b)(10)(viii) and (ix) of this section, for the standard for which you are seeking relief.

(B) Alternative standard petitions that you submit under paragraph (b)(10)(i)(B) of this section must include data or information documenting that mercury is not present at detectable levels in raw materials.

(v) You must include data or information with semivolatile metal and low volatile metal alternative standard petitions that you submit under paragraph (b)(10)(i)(A) of this section documenting that increased chlorine feedrates associated with the burning of hazardous waste, when compared to non-hazardous waste operations, do not significantly increase metal emissions attributable to raw materials.

(vi) You must include data or information with semivolatile metals, low volatile metals, and hydrogen chloride/chlorine gas alternative standard petitions that you submit under paragraph (b)(10)(i)(A) of this section documenting that emissions of the regulated metals and hydrogen chloride/chlorine gas attributable to the hazardous waste only will not exceed the emission standards in this subpart.

(vii) You must not operate pursuant to your recommended alternative standards in lieu of emission standards specified in this subpart:

(A) Unless the Administrator approves the provisions of the alternative standard petition request or establishes other alternative standards; and

(B) Until you submit a revised Notification of Compliance that incorporates the revised standards.

(viii) For purposes of this alternative standard provision, MACT for existing hazardous waste burning cement kilns is defined as:

(A) For mercury, a hazardous waste feedrate corresponding to an MTEC of 88 Fg/dscm or less;

(B) For semivolatile metals, a hazardous waste feedrate corresponding to an MTEC of 31,000 Fg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less;

(C) For low volatile metals, a hazardous waste feedrate corresponding to an MTEC of 54,000 Fg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; and

(D) For hydrogen chloride/chlorine gas, a hazardous waste chlorine feedrate corresponding to an MTEC of 720,000 µg/dscm or less.

(ix) For purposes of this alternative standard provision, MACT for new hazardous waste burning cement kilns is defined as:

(A) For mercury, a hazardous waste feedrate corresponding to an MTEC of 7 Fg/dscm or less;

(B) For semivolatile metals, a hazardous waste feedrate corresponding to an MTEC of 31,000 Fg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less;

(C) For low volatile metals, a hazardous waste feedrate corresponding to an MTEC of 15,000 Fg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less;

(D) For hydrogen chloride/chlorine gas, a hazardous waste chlorine feedrate corresponding to an MTEC of 420,000 µg/dscm or less.

(11) *Calculation of hazardous waste residence time.* You must calculate the hazardous waste residence time and include the calculation in the performance test plan under §63.1207(f) and the operating record. You must also provide the hazardous waste residence time in the Documentation of Compliance under §63.1211(c) and the Notification of Compliance under §§63.1207(j) and 63.1210(d).

(12) *Documenting compliance with the standards based on performance testing.* (i) You must conduct a minimum of three runs of a performance test required under §63.1207 to document compliance with the emission standards of this subpart.

(ii) You must document compliance with the emission standards based on the arithmetic average of the emission results of each run, except that you must document compliance with the destruction and removal efficiency standard for each run of the comprehensive performance test individually.

(13) *Cement kilns and lightweight aggregate kilns that feed hazardous waste at a location other than the end where products are normally discharged and where fuels are normally fired.*

(i) Cement kilns that feed hazardous waste at a location other than the end where products are normally discharged and where fuels are normally fired must comply with the carbon monoxide and hydrocarbon standards of this subpart as follows:

(A) For existing sources, you must not discharge or cause combustion gases to be emitted into the atmosphere that contain either:

(*1*) Hydrocarbons in the main stack in excess of 20 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(*2*) Hydrocarbons both in the by-pass duct and at a preheater tower combustion gas monitoring location in excess of 10 parts per million by volume, at each location, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(*3*) If the only firing location of hazardous waste upstream (in terms of gas flow) of the point where combustion gases are diverted into the bypass duct is at the kiln end where products are normally discharged, then both hydrocarbons at the preheater tower combustion gas monitoring location in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, and either hydrocarbons in the by-pass duct in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, or carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, and corrected to 7 percent oxygen. If you comply with the carbon monoxide standard of 100 parts per million by volume in the by-pass duct, then you must also not discharge or cause combustion gases to be emitted into the atmosphere that contain hydrocarbons in the by-pass duct in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, at any time during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7).

(B) For new sources, you must not discharge or cause combustion gases to be emitted into the atmosphere that contain either:

(*1*) Hydrocarbons in the main stack in excess of 20 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(*2*)(*i*) Hydrocarbons both in the by-pass duct and at a preheater tower combustion gas monitoring location in excess of 10 parts per million by volume, at each location, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, and

(*ii*) Hydrocarbons in the main stack, if construction of the kiln commenced after April 19, 1996 at a plant site where a cement kiln (whether burning hazardous waste or not) did not previously exist, to 50 parts per million by volume, over a 30-day block average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(*3*)(*i*) If the only firing location of hazardous waste upstream (in terms of gas flow) of the point where combustion gases are diverted into the bypass duct is at the kiln end where products are normally discharged, then both hydrocarbons at the preheater tower combustion gas monitoring location in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, and either hydrocarbons in the by-pass duct in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, or carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, and corrected to 7 percent oxygen. If you comply with the carbon monoxide standard of 100 parts per million by volume in the by-pass duct, then you must also not discharge or cause combustion gases to be emitted into the atmosphere that contain hydrocarbons in the

by-pass duct in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, at any time during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7).

(*ii*) If construction of the kiln commenced after April 19, 1996 at a plant site where a cement kiln (whether burning hazardous waste or not) did not previously exist, hydrocarbons are limited to 50 parts per million by volume, over a 30-day block average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane.

(ii) Lightweight aggregate kilns that feed hazardous waste at a location other than the end where products are normally discharged and where fuels are normally fired must comply with the hydrocarbon standards of this subpart as follows:

(A) Existing sources must comply with the 20 parts per million by volume hydrocarbon standard of this subpart;

(B) New sources must comply with the 20 parts per million by volume hydrocarbon standard of this subpart.

(14) *Alternative to the particulate matter standard for incinerators.* (i). *General.* In lieu of complying with the particulate matter standards under §63.1203, you may elect to comply with the following alternative metal emission control requirements:

(ii) *Alternative metal emission control requirements for existing incinerators.* (A) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain cadmium, lead, and selenium in excess of 240 µg/dscm, combined emissions, corrected to 7 percent oxygen; and,

(B) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel in excess of 97 µg/dscm, combined emissions, corrected to 7 percent oxygen.

(iii) *Alternative metal emission control requirements for new incinerators.* (A) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain cadmium, lead, and selenium in excess of 24 µg/dscm, combined emissions, corrected to 7 percent oxygen; and,

(B) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel in excess of 97 µg/dscm, combined emissions, corrected to 7 percent oxygen.

(iv) *Operating limits.* Semivolatile and low volatile metal operating parameter limits must be established to ensure compliance with the alternative emission limitations described in paragraphs (e)(2) and (e)(3) of this section pursuant to §63.1209(n), except that semivolatile metal feedrate limits apply to lead, cadmium, and selenium, combined, and low volatile metal feedrate limits apply to arsenic, beryllium, chromium, antimony, cobalt, manganese, and nickel, combined.

(15) *Alternative to the interim standards for mercury for cement and lightweight aggregate kilns.* (i) *General.* In lieu of complying with the applicable mercury standards of §§63.1204(a)(2) and (b)(2) for existing and new cement kilns and §§63.1205(a)(2) and (b)(2) for existing and new lightweight aggregate kilns, you may instead elect to comply with the alternative mercury standard described in paragraphs (b)(15)(ii) through (b)(15)(v) of this section.

(ii) *Operating requirement.* You must not exceed a hazardous waste feedrate corresponding to a maximum theoretical emission concentration (MTEC) of 120 Fg/dscm on a twelve-hour rolling average.

(iii) To document compliance with the operating requirement of paragraph (b)(15)(ii) of this section, you must:

(A) Monitor and record the feedrate of mercury for each hazardous waste feedstream according to §63.1209(c);

(B) Monitor with a CMS and record in the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that you have correlated to gas flowrate);

(C) Continuously calculate and record in the operating record a MTEC assuming mercury from all hazardous waste feedstreams is emitted;

(D) Interlock the MTEC calculated in paragraph (b)(15)(iii)(C) of this section to the AWFCO system to stop hazardous waste burning when the MTEC exceeds the operating requirement of paragraph (b)(15)(ii) of this section.

(iv) In lieu of the requirement in paragraph (b)(15)(iii) of this section, you may:

(A) Identify in the Notification of Compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury from all hazardous waste feedstreams that ensures the MTEC calculated in paragraph (b)(15)(iii)(C) of this section is below the operating requirement of paragraph (b)(15)(ii) of this section; and

(B) Interlock the minimum gas flowrate limit and maximum feedrate limits in paragraph (b)(15)(iv)(A) of this section to the AWFCO system to stop hazardous waste burning when the gas flowrate or mercury feedrate exceeds the limits in paragraph (b)(15)(iv)(A) of this section.

(v) *Notification requirement.* You must notify in writing the RCRA authority that you intend to comply with the alternative standard.

(16) *Compliance with subcategory standards for liquid fuel boilers.* You must comply with the mercury, semivolatile, low volatile metal, and total chlorine standards for liquid fuel boilers under §63.1217 as follows:

(i) You must determine the as-fired heating value of each batch of hazardous waste fired by each firing system of the boiler so that you know the mass-weighted heating value of the hazardous waste fired at all times.

(ii) If the as-fired heating value of the hazardous waste is 10,000 Btu per pound or greater, you are subject to the thermal emission concentration standards (lb/million Btu) under §63.1217.

(iii) If the as-fired heating value of the hazardous waste is less than 10,000 Btu/lb, you are subject to the mass or volume emission concentration standards (µg/dscm or ppmv) under §63.1217.

(iv) If the as-fired heating value of hazardous wastes varies above and below 10,000 Btu/lb over time, you are subject to the thermal concentration standards when the heating value is 10,000 Btu/lb or greater and the mass concentration standards when the heating value is less than 10,000 Btu/lb. You may elect to comply at all times with the more stringent operating requirements that ensure compliance with both the thermal emission concentration standards and the mass or volume emission concentration standards.

(c) *Operating requirements*—(1) *General.* (i) You must operate only under the operating requirements specified in the Documentation of Compliance under §63.1211(c) or the Notification of Compliance under §§63.1207(j) and 63.1210(d), except:

(A) During performance tests under approved test plans according to §63.1207(e), (f), and (g), and

(B) Under the conditions of paragraph (b)(1)(i) or (ii) of this section;

(ii) The Documentation of Compliance and the Notification of Compliance must contain operating requirements including, but not limited to, the operating requirements in this section and §63.1209

(iii) Failure to comply with the operating requirements is failure to ensure compliance with the emission standards of this subpart;

(iv) Operating requirements in the Notification of Compliance are applicable requirements for purposes of parts 70 and 71 of this chapter;

(v) The operating requirements specified in the Notification of Compliance will be incorporated in the title V permit.

(2) *Startup, shutdown, and malfunction plan.* (i) You are subject to the startup, shutdown, and malfunction plan requirements of §63.6(e)(3).

(ii) If you elect to comply with §§270.235(a)(1)(iii), 270.235(a)(2)(iii), or 270.235(b)(1)(ii) of this chapter to address RCRA concerns that you minimize emissions of toxic compounds from startup, shutdown, and malfunction events (including releases from emergency safety vents):

(A) The startup, shutdown, and malfunction plan must include a description of potential causes of malfunctions, including releases from emergency safety vents, that may result in significant releases of hazardous air pollutants, and actions the source is taking to minimize the frequency and severity of those malfunctions.

(B) You must submit the startup, shutdown, and malfunction plan to the Administrator for review and approval.

(*1*) *Approval procedure.* The Administrator will notify you of approval or intention to deny approval of the startup, shutdown, and malfunction plan within 90 calendar days after receipt of the original request and within 60 calendar days after receipt of any supplemental information that you submit. Before disapproving the plan, the Administrator will notify you of the Administrator's intention to disapprove the plan together with:

(*i*) Notice of the information and findings on which intended disapproval is based; and

(*ii*) Notice of opportunity for you to present additional information to the Administrator before final action on disapproval of the plan. At the time the Administrator notifies you of intention to disapprove the plan, the Administrator will specify how much time you will have after being notified on the intended disapproval to submit additional information.

(*2*) *Responsibility of owners and operators.* You are responsible for ensuring that you submit any supplementary and additional information supporting your plan in a timely manner to enable the Administrator to consider whether to approve the plan. Neither your submittal of the plan, nor the Administrator's failure to approve or disapprove the plan, relieves you of the responsibility to comply with the provisions of this subpart.

(C) *Changes to the plan that may significantly increase emissions.* (*1*) You must request approval in writing from the Administrator within 5 days after making a change to the startup, shutdown, and malfunction plan that may significantly increase emissions of hazardous air pollutants.

(*2*) To request approval of such changes to the startup, shutdown, and malfunction plan, you must follow the procedures provided by paragraph (c)(2)(ii)(B) of this section for initial approval of the plan.

(iii) You must identify in the plan a projected oxygen correction factor based on normal operations to use during periods of startup and shutdown.

(iv) You must record the plan in the operating record.

(v) *Operating under the startup, shutdown, and malfunction plan.* (A) *Compliance with AWFCO requirements during malfunctions.* (*1*) During malfunctions, the automatic waste feed cutoff requirements of §63.1206(c)(3) continue to apply, except for paragraphs (c)(3)(v) and (c)(3)(vi) of this section. If you exceed a part 63, Subpart EEE, of this chapter emission standard monitored by a CEMS or COMs or operating limit specified under §63.1209, the automatic waste feed cutoff system must immediately and automatically cutoff the hazardous waste feed, except as provided by paragraph (c)(3)(viii) of this section. If the malfunction itself prevents immediate and automatic cutoff of the hazardous waste feed, however, you must cease feeding hazardous waste as quickly as possible.

(*2*) Although the automatic waste feed cutoff requirements continue to apply during a malfunction, an exceedance of an emission standard monitored by a CEMS or COMS or operating limit specified under §63.1209 is not a violation of this subpart if you take the corrective measures prescribed in the startup, shutdown, and malfunction plan.

(*3*) *Excessive exceedances during malfunctions.* For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (*i.e.,* when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, you must:

(*i*) Within 45 days of the 10th exceedance, complete an investigation of the cause of each exceedance and evaluation of approaches to minimize the frequency, duration, and severity of each exceedance, and revise the startup, shutdown, and malfunction plan as warranted by the evaluation to minimize the frequency, duration, and severity of each exceedance; and

(*ii*) Record the results of the investigation and evaluation in the operating record, and include a summary of the investigation and evaluation, and any changes to the startup, shutdown, and malfunction plan, in the excess emissions report required under §63.10(e)(3).

(B) *Compliance with AWFCO requirements when burning hazardous waste during startup and shutdown.* (*1*) If you feed hazardous waste during startup or shutdown, you must include waste feed restrictions (*e.g.,* type and quantity), and other appropriate operating conditions and limits in the startup, shutdown, and malfunction plan.

(*2*) You must interlock the operating limits you establish under paragraph (c)(2)(v)(B)(*1*) of this section with the automatic waste feed cutoff system required under §63.1206(c)(3), except for paragraphs (c)(3)(v) and (c)(3)(vi) of this section.

(*3*) When feeding hazardous waste during startup or shutdown, the automatic waste feed cutoff system must immediately and automatically cutoff the hazardous waste feed if you exceed the operating limits you establish under paragraph (c)(2)(v)(B)(*1*) of this section, except as provided by paragraph (c)(3)(viii) of this section.

(*4*) Although the automatic waste feed cutoff requirements of this paragraph apply during startup and shutdown, an exceedance of an emission standard or operating limit is not a violation of this subpart if you comply with the operating procedures prescribed in the startup, shutdown, and malfunction plan.

(3) *Automatic waste feed cutoff (AWFCO)*—(i) *General.* Upon the compliance date, you must operate the hazardous waste combustor with a functioning system that immediately and automatically cuts off the hazardous waste feed, except as provided by paragraph (c)(3)(viii) of this section:

(A) When any of the following are exceeded: Operating parameter limits specified under §63.1209; an emission standard monitored by a CEMS; and the allowable combustion chamber pressure;

(B) When the span value of any CMS detector, except a CEMS, is met or exceeded;

(C) Upon malfunction of a CMS monitoring an operating parameter limit specified under §63.1209 or an emission level; or

(D) When any component of the automatic waste feed cutoff system fails.

(ii) *Ducting of combustion gases.* During an AWFCO, you must continue to duct combustion gasses to the air pollution control system while hazardous waste remains in the combustion chamber (*i.e*., if the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated).

(iii) *Restarting waste feed.* You must continue to monitor during the cutoff the operating parameters for which limits are established under §63.1209 and the emissions required under that section to be monitored by a CEMS, and you must not restart the hazardous waste feed until the operating parameters and emission levels are within the specified limits.

(iv) *Failure of the AWFCO system.* If the AWFCO system fails to automatically and immediately cutoff the flow of hazardous waste upon exceedance of a parameter required to be interlocked with the AWFCO system under paragraph (c)(3)(i) of this section, you have failed to comply with the AWFCO requirements of paragraph (c)(3) of this section. If an equipment or other failure prevents immediate and automatic cutoff of the hazardous waste feed, however, you must cease feeding hazardous waste as quickly as possible.

(v) *Corrective measures.* If, after any AWFCO, there is an exceedance of an emission standard or operating requirement, irrespective of whether the exceedance occurred while hazardous waste remained in the combustion chamber (*i.e.,* whether the hazardous waste residence time has transpired since the hazardous waste feed cutoff system was activated), you must investigate the cause of the AWFCO, take appropriate corrective measures to minimize future AWFCOs, and record the findings and corrective measures in the operating record.

(vi) *Excessive exceedance reporting.* (A) For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (*i.e.,* when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, you must submit to the Administrator a written report within 5 calendar days of the 10th exceedance documenting the exceedances and results of the investigation and corrective measures taken.

(B) On a case-by-case basis, the Administrator may require excessive exceedance reporting when fewer than 10 exceedances occur during a 60-day block period.

(vii) *Testing.* The AWFCO system and associated alarms must be tested at least weekly to verify operability, unless you document in the operating record that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, you must conduct operability testing at least monthly. You must document and record in the operating record AWFCO operability test procedures and results.

(viii) *Ramping down waste feed.* (A) You may ramp down the waste feedrate of pumpable hazardous waste over a period not to exceed one minute, except as provided by paragraph (c)(3)(viii)(B) of this section. If you elect to ramp down the waste feed, you must document ramp down procedures in the operating and maintenance plan. The procedures must specify that the ramp down begins immediately upon initiation of automatic waste feed cutoff and the procedures must prescribe a bona fide ramping down. If an emission standard or operating limit is exceeded during the ramp down, you have failed to comply with the emission standards or operating requirements of this subpart.

(B) If the automatic waste feed cutoff is triggered by an exceedance of any of the following operating limits, you may not ramp down the waste feed cutoff: Minimum combustion chamber temperature, maximum hazardous waste feedrate, or any hazardous waste firing system operating limits that may be established for your combustor.

(4) *ESV openings*—(i) *Failure to meet standards.* If an emergency safety vent (ESV) opens when hazardous waste remains in the combustion chamber (*i.e.,* when the hazardous waste residence time has not expired) during an event other than a malfunction as defined in the startup, shutdown, and malfunction plan such that combustion gases are not treated as during the most recent comprehensive performance test (*e.g.,* if the combustion gas by-passes any emission control device that was operating during the

performance test), you must document in the operating record whether you remain in compliance with the emission standards of this subpart considering emissions during the ESV opening event.

(ii) *ESV operating plan.* (A) You must develop an ESV operating plan, comply with the operating plan, and keep the plan in the operating record.

(B) The ESV operating plan must provide detailed procedures for rapidly stopping the waste feed, shutting down the combustor, and maintaining temperature and negative pressure in the combustion chamber during the hazardous waste residence time, if feasible. The plan must include calculations and information and data documenting the effectiveness of the plan's procedures for ensuring that combustion chamber temperature and negative pressure are maintained as is reasonably feasible.

(iii) *Corrective measures.* After any ESV opening that results in a failure to meet the emission standards as defined in paragraph (c)(4)(i) of this section, you must investigate the cause of the ESV opening, take appropriate corrective measures to minimize such future ESV openings, and record the findings and corrective measures in the operating record.

(iv) *Reporting requirements.* You must submit to the Administrator a written report within 5 days of an ESV opening that results in failure to meet the emission standards of this subpart (as determined in paragraph (c)(4)(i) of this section) documenting the result of the investigation and corrective measures taken.

(5) *Combustion system leaks.* (i) Combustion system leaks of hazardous air pollutants must be controlled by:

(A) Keeping the combustion zone sealed to prevent combustion system leaks; or

(B) Maintaining the maximum combustion zone pressure lower than ambient pressure using an instantaneous monitor; or

(C) Upon prior written approval of the Administrator, an alternative means of control to provide control of combustion system leaks equivalent to maintenance of combustion zone pressure lower than ambient pressure; or

(D) Upon prior written approval of the Administrator, other technique(s) which can be demonstrated to prevent fugitive emissions without use of instantaneous pressure limits; and

(ii) You must specify in the performance test workplan and Notification of Compliance the method that will be used to control combustion system leaks. If you control combustion system leaks by maintaining the combustion zone pressure lower than ambient pressure using an instantaneous monitor, you must also specify in the performance test workplan and Notification of Compliance the monitoring and recording frequency of the pressure monitor, and specify how the monitoring approach will be integrated into the automatic waste feed cutoff system.

(6) *Operator training and certification.* (i) You must establish training programs for all categories of personnel whose activities may reasonably be expected to directly affect emissions of hazardous air pollutants from the source. Such persons include, but are not limited to, chief facility operators, control room operators, continuous monitoring system operators, persons that sample and analyze feedstreams, persons that manage and charge feedstreams to the combustor, persons that operate emission control devices, and ash and waste handlers. Each training program shall be of a technical level commensurate with the person's job duties specified in the training manual. Each commensurate training program shall require an examination to be administered by the instructor at the end of the training course. Passing of this test shall be deemed the “certification” for personnel, except that, for control room operators, the

training and certification program shall be as specified in paragraphs (c)(6)(iii) through (c)(6)(vi) of this section.

(ii) You must ensure that the source is operated and maintained at all times by persons who are trained and certified to perform these and any other duties that may affect emissions of hazardous air pollutants. A certified control room operator must be on duty at the site at all times the source is in operation.

(iii) Hazardous waste incinerator control room operators must:

(A) Be trained and certified under a site-specific, source-developed and implemented program that meets the requirements of paragraph (c)(6)(v) of this section; or

(B) Be trained under the requirements of, and certified under, one of the following American Society of Mechanical Engineers (ASME) standards: QHO–1–1994, QHO–1a–1996, or QHO–1–2004 (Standard for the Qualification and Certification of Hazardous Waste Incinerator Operators). If you elect to use the ASME program:

(*1*) Control room operators must, prior to the compliance date, achieve provisional certification, and must submit an application to ASME and be scheduled for the full certification exam. Within one year of the compliance date, control room operators must achieve full certification;

(*2*) New operators and operators of new sources must, before assuming their duties, achieve provisional certification, and must submit an application to ASME, and be scheduled for the full certification exam. Within one year of assuming their duties, these operators must achieve full certification; or

(C) Be trained and certified under a State program.

(iv) Control room operators of cement kilns, lightweight aggregate kilns, solid fuel boilers, liquid fuel boilers, and hydrochloric acid production furnaces must be trained and certified under:

(A) A site-specific, source-developed and implemented program that meets the requirements of paragraph (c)(6)(v) of this section; or

(B) A State program.

(v) Site-specific, source developed and implemented training programs for control room operators must include the following elements:

(A) Training on the following subjects:

(*1*) Environmental concerns, including types of emissions;

(*2*) Basic combustion principles, including products of combustion;

(*3*) Operation of the specific type of combustor used by the operator, including proper startup, waste firing, and shutdown procedures;

(*4*) Combustion controls and continuous monitoring systems;

(*5*) Operation of air pollution control equipment and factors affecting performance;

(*6*) Inspection and maintenance of the combustor, continuous monitoring systems, and air pollution control devices;

(*7*) Actions to correct malfunctions or conditions that may lead to malfunction;

(*8*) Residue characteristics and handling procedures; and

(*9*) Applicable Federal, state, and local regulations, including Occupational Safety and Health Administration workplace standards; and

(B) An examination designed and administered by the instructor; and

(C) Written material covering the training course topics that may serve as reference material following completion of the course.

(vi) To maintain control room operator qualification under a site-specific, source developed and implemented training program as provided by paragraph (c)(6)(v) of this section, control room operators must complete an annual review or refresher course covering, at a minimum, the following topics:

(A) Update of regulations;

(B) Combustor operation, including startup and shutdown procedures, waste firing, and residue handling;

(C) Inspection and maintenance;

(D) Responses to malfunctions or conditions that may lead to malfunction; and

(E) Operating problems encountered by the operator.

(vii) You must record the operator training and certification program in the operating record.

(7) *Operation and maintenance plan*—(i) You must prepare and at all times operate according to an operation and maintenance plan that describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the combustor, including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants.

(ii) The plan must prescribe how you will operate and maintain the combustor in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels achieved during the comprehensive performance test.

(iii) This plan ensures compliance with the operation and maintenance requirements of §63.6(e) and minimizes emissions of pollutants, automatic waste feed cutoffs, and malfunctions.

(iv) You must record the plan in the operating record.

(8) *Bag leak detection system requirements.* (i) If your combustor is equipped with a baghouse (fabric filter), you must continuously operate either:

(A) A bag leak detection system that meets the specifications and requirements of paragraph (c)(8)(ii) of this section and you must comply with the corrective measures and notification requirements of paragraphs (c)(8)(iii) and (iv) of this section; or

(B) A particulate matter detection system under paragraph (c)(9) of this section.

(ii) *Bag leak detection system specification and requirements.* (A) The bag leak detection system must be certified by the manufacturer to be capable of continuously detecting and recording particulate matter emissions at concentrations of 1.0 milligrams per actual cubic meter unless you demonstrate, under §63.1209(g)(1), that a higher detection limit would routinely detect particulate matter loadings during normal operations;

(B) The bag leak detection system shall provide output of relative or absolute particulate matter loadings;

(C) The bag leak detection system shall be equipped with an alarm system that will sound an audible alarm when an increase in relative particulate loadings is detected over a preset level;

(D) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system;

(E) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time;

(F) Following initial adjustment, you must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in the operation and maintenance plan required under paragraph (c)(7) of this section. You must not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition;

(G) For negative pressure or induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector shall be installed downstream of the baghouse and upstream of any wet acid gas scrubber; and

(H) Where multiple detectors are required, the system's instrumentation and alarm system may be shared among the detectors.

(iii) *Bag leak detection system corrective measures requirements.* The operating and maintenance plan required by paragraph (c)(7) of this section must include a corrective measures plan that specifies the procedures you will follow in the case of a bag leak detection system alarm. The corrective measures plan must include, at a minimum, the procedures used to determine and record the time and cause of the alarm as well as the corrective measures taken to correct the control device malfunction or minimize emissions as specified below. Failure to initiate the corrective measures required by this paragraph is failure to ensure compliance with the emission standards in this subpart.

(A) You must initiate the procedures used to determine the cause of the alarm within 30 minutes of the time the alarm first sounds; and

(B) You must alleviate the cause of the alarm by taking the necessary corrective measure(s) which may include, but are not to be limited to, the following:

(*1*) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions;

(*2*) Sealing off defective bags or filter media;

(*3*) Replacing defective bags or filter media, or otherwise repairing the control device;

(*4*) Sealing off a defective baghouse compartment;

(*5*) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system; or

(*6*) Shutting down the combustor.

(iv) *Excessive exceedances notification.* If you operate the combustor when the detector response exceeds the alarm set-point more than 5 percent of the time during any 6-month block time period, you must submit a notification to the Administrator within 30 days of the end of the 6-month block time period that describes the causes of the exceedances and the revisions to the design, operation, or maintenance of the combustor or baghouse you are taking to minimize exceedances. To document compliance with this requirement:

(A) You must 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;

(B) You must record the percent of the operating time during each 6-month period that the alarm sounds;

(C) In calculating the operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted; and

(D) If corrective action is required, each alarm shall be counted as a minimum of 1 hour.

(9) *Particulate matter detection system requirements for electrostatic precipitators and ionizing wet scrubbers.* If your combustor is equipped with an electrostatic precipitator or ionizing wet scrubber, and you elect not to establish under §63.1209(m)(1)(iv) site-specific control device operating parameter limits that are linked to the automatic waste feed cutoff system under paragraph (c)(3) of this section, you must continuously operate a particulate matter detection system that meets the specifications and requirements of paragraph (c)(9)(i) through (iii) of this section and you must comply with the corrective measures and notification requirements of paragraphs (c)(9)(iv) through (v) of this section.

(i) *Particulate matter detection system requirements.*—(A) The particulate matter detection system must be certified by the manufacturer to be capable of continuously detecting and recording particulate matter emissions at concentrations of 1.0 milligrams per actual cubic meter unless you demonstrate, under §63.1209(g)(1), that a higher detection limit would routinely detect particulate matter loadings during normal operations;

(B) The particulate matter detector shall provide output of relative or absolute particulate matter loadings;

(C) The particulate matter detection system shall be equipped with an alarm system that will sound an audible alarm when an increase in relative or absolute particulate loadings is detected over the set-point

(D) You must install, operate, and maintain the particulate matter detection system in a manner consistent with the provisions of paragraph (c)(9) of this section and available written guidance from the U.S. Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, maintenance and quality assurance of the system;

(E) You must include procedures for installation, operation, maintenance, and quality assurance of the particulate matter detection system in the site-specific continuous monitoring system test plan required under §63.8(e)(3) of this chapter.

(F) Where multiple detectors are required to monitor multiple control devices, the system's instrumentation and alarm system may be shared among the detectors.

(G) You must establish the alarm set-point as provided by either paragraph (c)(9)(ii) or paragraph (c)(9)(iii) of this section.

(ii) *Establishing the alarm set-point without extrapolation.* (A) The alarm set-point is the average of the test run averages of the detector response achieved during the comprehensive performance test demonstrating compliance with the particulate matter emission standard.

(B) During the comprehensive performance test, you may simulate emission concentrations at the upper end of the range of normal operations by means including feeding high levels of ash and detuning the emission control equipment.

(C) You must comply with the alarm set-point on a 6-hour rolling average, updated each hour with a one-hour block average that is the average of the detector responses over each 15-minute block;

(iii) *Establishing the alarm set-point with extrapolation.* You may extrapolate the average of the test run averages of the detector response achieved during the comprehensive performance test as provided by paragraph (c)(9)(iii)(A) of this section to establish an alarm level after you approximate the correlation of the detector response to particulate matter concentration as prescribed by paragraph (c)(9)(iii)(B) of this section. You must comply with the extrapolated alarm set-point on a 6-hour rolling average, updated each hour with a one-hour block average that is the average of the detector responses over each 15-minute block.

(A) You may extrapolate the detector response up to a particulate matter concentration that is 50% of the particulate matter emission standard or 125% of the highest particulate matter concentration used to develop the correlation under paragraph (c)(9)(iii)(B) of this section, whichever is greater. The extrapolated emission concentration must not exceed the particulate matter emission standard.

(B) To establish an approximate correlation of the detector response to particulate matter emission concentrations, you should use as guidance Performance Specification-11 for PM CEMS (40 CFR Part 60, Appendix B), except that you need only conduct 5 runs to establish the initial correlation under Section 8.6 of Performance Specification 11.

(C) For quality assurance, you should use as guidance Procedure 2 of Appendix F to Part 60 of this chapter and the detector manufacturer's recommended procedures for periodic quality assurance checks and tests, except that:

(*1*) You must conduct annual Relative Response Audits as prescribed by Procedure 2 of Appendix F to Part 60 of this chapter (Section 10.3(6));

(*2*) You need only conduct Relative Response Audits on a 3-year interval after passing two sequential annual Relative Response Audits.

(D) An exceedance of the particulate matter emission standard by a particulate matter detection system for which particulate emission concentrations have been approximately correlated with the detector response under paragraph (c)(9)(iii) of this section is not evidence that the standard has been exceeded. The approximate correlation is used for compliance assurance to determine when corrective measures must be taken rather than for compliance monitoring.

(iv) *Particulate matter detection system corrective measures requirements.* The operating and maintenance plan required by paragraph (c)(7) of this section must include a corrective measures plan that specifies the procedures you will follow in the case of a particulate matter detection system alarm. The corrective measures plan must include, at a minimum, the procedures used to determine and record the time and cause of the alarm as well as the corrective measures taken to correct the control device malfunction or minimize emissions as specified below. Failure to initiate the corrective measures required by this paragraph is failure to ensure compliance with the emission standards in this subpart.

(A) You must initiate the procedures used to determine the cause of the alarm within 30 minutes of the time the alarm first sounds; and

(B) You must alleviate the cause of the alarm by taking the necessary corrective measure(s) which may include shutting down the combustor.

(v) *Excessive exceedances notification.* If you operate the combustor when the detector response exceeds the alarm set-point more than 5 percent of the time during any 6-month block time period, you must submit a notification to the Administrator within 30 days of the end of the 6-month block time period that describes the causes of the exceedances and the revisions to the design, operation, or maintenance of the combustor or emission control device you are taking to minimize exceedances. To document compliance with this requirement:

(A) You must 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;

(B) You must record the percent of the operating time during each 6-month period that the alarm sounds;

(C) In calculating the operating time percentage, if inspection of the emission control device demonstrates that no corrective action is required, no alarm time is counted; and

(D) If corrective action is required, each alarm shall be counted as a minimum of 1 hour.

**[63.1207]**

**What are the performance testing requirements?**

(a) *General.* The provisions of §63.7 apply, except as noted below.

(b) *Types of performance tests*— (1) *Comprehensive performance test.* You must conduct comprehensive performance tests to demonstrate compliance with the emission standards provided by this subpart, establish limits for the operating parameters provided by §63.1209, and demonstrate compliance with the performance specifications for continuous monitoring systems.

(2) *Confirmatory performance test.* You must conduct confirmatory performance tests to:

(i) Demonstrate compliance with the dioxin/furan emission standard when the source operates under normal operating conditions; and

(ii) Conduct a performance evaluation of continuous monitoring systems required for compliance assurance with the dioxin/furan emission standard under §63.1209(k).

(3) *One-Time Dioxin/Furan Test for Sources Not Subject to a Numerical Dioxin/Furan Standard.* For solid fuel boilers and hydrochloric acid production furnaces, for lightweight aggregate kilns that are not subject to a numerical dioxin/furan emission standard under §63.1221, and liquid fuel boilers that are not subject to a numerical dioxin/furan emission standard under §63.1217, you must conduct a one-time emission test for dioxin/furan under feed and operating conditions that are most likely to reflect daily maximum operating variability, similar to a dioxin/furan comprehensive performance test.

(i) You must conduct the dioxin/furan emissions test no later than the deadline for conducting the initial comprehensive performance test.

(ii) You may use dioxin/furan emissions data from previous testing to meet this requirement, provided that:

(A) The testing was conducted under feed and operating conditions that are most likely to reflect daily maximum operating variability, similar to a dioxin/furan compliance test;

(B) You have not changed the design or operation of the source in a manner that could significantly affect stack gas dioxin/furan emission concentrations; and

(C) The data meet quality assurance objectives that may be determined on a site-specific basis.

(iii) You may use dioxin/furan emissions data from a source to represent emissions from another on-site source in lieu of testing (i.e., data in lieu of testing) if the design and operation, including hazardous waste feed and other feedstreams, of the sources are identical.

(iv) You must include the results of the one-time dioxin/furan emissions test with the results of the initial comprehensive performance test in the Notification of Compliance.

(v) You must repeat the dioxin/furan emissions test if you change the design or operation of the source in a manner that may increase dioxin/furan emissions.

(c) *Initial comprehensive performance test*— (1) *Test date.* Except as provided by paragraphs (c)(2) and (c)(3) of this section, you must commence the initial comprehensive performance test not later than six months after the compliance date.

(2) *Data in lieu of the initial comprehensive performance test.* (i) You may request that previous emissions test data serve as documentation of conformance with the emission standards of this subpart provided that the previous testing:

(A) Was initiated after 54 months prior to the compliance date, except as provided by paragraphs (c)(2)(iii) or (c)(2)(iv) of this section;

(B) Results in data that meet quality assurance objectives (determined on a site-specific basis) such that the results demonstrate compliance with the applicable standards;

(C) Was in conformance with the requirements of paragraph (g)(1) of this section; and

(D) Was sufficient to establish the applicable operating parameter limits under §63.1209.

(ii) You must submit data in lieu of the initial comprehensive performance test in lieu of (i.e., if the data are in lieu of all performance testing) or with the notification of performance test required under paragraph (e) of this section.

(iii) The data in lieu test age restriction provided in paragraph (c)(2)(i)(A) of this section does not apply for the duration of the interim standards (i.e., the standards published in the Federal Register on February 13, 2002, 67 FR 6792). See 40 CFR parts 63, 264, 265, 266, 270, and 271 revised as of July 1, 2002. Paragraph (c)(2)(i)(A) of this section does not apply until EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001 (66 FR 57715).

(iv) The data in lieu test age restriction provided in paragraph (c)(2)(i)(A) of this section does not apply to DRE data provided you do not feed hazardous waste at a location in the combustion system other than the normal flame zone.

(3) For incinerators, cement kilns, and lightweight aggregate kilns, you must commence the initial comprehensive performance test to demonstrate compliance with the standards under §§63.1219, 63.1220, and 63.1221 not later than 12 months after the compliance date.

(d) *Frequency of testing.* Except as otherwise specified in paragraph (d)(4) of this section, you must conduct testing periodically as prescribed in paragraphs (d)(1) through (d)(3) of this section. The date of commencement of the initial comprehensive performance test is the basis for establishing the deadline to commence the initial confirmatory performance test and the next comprehensive performance test. You may conduct performance testing at any time prior to the required date. The deadline for commencing subsequent confirmatory and comprehensive performance testing is based on the date of commencement of the previous comprehensive performance test. Unless the Administrator grants a time extension under paragraph (i) of this section, you must conduct testing as follows:

(1) *Comprehensive performance testing.* Except as otherwise specified in paragraph (d)(4) of this section, you must commence testing no later than 61 months after the date of commencing the previous comprehensive performance test. If you submit data in lieu of the initial performance test, you must commence the subsequent comprehensive performance test within 61 months of commencing the test used to provide the data in lieu of the initial performance test.

(2) *Confirmatory performance testing.* Except as otherwise specified in paragraph (d)(4) of this section, you must commence confirmatory performance testing no later than 31 months after the date of commencing the previous comprehensive performance test. If you submit data in lieu of the initial performance test, you must commence the initial confirmatory performance test within 31 months of the date six months after the compliance date. To ensure that the confirmatory test is conducted approximately midway between comprehensive performance tests, the Administrator will not approve a test plan that schedules testing within 18 months of commencing the previous comprehensive performance test.

(3) *Duration of testing.* You must complete performance testing within 60 days after the date of commencement, unless the Administrator determines that a time extension is warranted based on your documentation in writing of factors beyond your control that prevent you from meeting the 60-day deadline.

(4) *Applicable testing requirements under the interim standards.* (i) *Waiver of periodic comprehensive performance tests.* Except as provided in paragraph (c)(2) of this section, you must conduct only an initial comprehensive performance test under the interim standards (i.e., the standards published in the Federal Register on February 13, 2002); all subsequent comprehensive performance testing requirements are waived under the interim standards. The provisions in the introductory text to paragraph (d) and in paragraph (d)(1) of this section do not apply until EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001.

(ii) *Waiver of confirmatory performance tests.* You are not required to conduct a confirmatory test under the interim standards (*i.e.,* the standards published in the Federal Register on February 13, 2002. The confirmatory testing requirements in the introductory text to paragraph (d) and in paragraph (d)(2) of this section are waived until EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001.

(e) *Notification of performance test and CMS performance evaluation, and approval of test plan and CMS performance evaluation plan.* (1) The provisions of §63.7(b) and (c) and §63.8(e) apply, except:

(i) *Comprehensive performance test.* You must submit to the Administrator a notification of your intention to conduct a comprehensive performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least one year before the performance test and performance evaluation are scheduled to begin.

(A) The Administrator will notify you of approval or intent to deny approval of the site-specific test plan and CMS performance evaluation test plan within 9 months after receipt of the original plan.

(B) You must submit to the Administrator a notification of your intention to conduct the comprehensive performance test at least 60 calendar days before the test is scheduled to begin.

(ii) *Confirmatory performance test.* You must submit to the Administrator a notification of your intention to conduct a confirmatory performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least 60 calendar days before the performance test is scheduled to begin. The Administrator will notify you of approval or intent to deny approval of the site-specific test plan and CMS performance evaluation test plan within 30 calendar days after receipt of the original test plans.

(2) You must make your site-specific test plan and CMS performance evaluation test plan available to the public for review no later than 60 calendar days before initiation of the test. You must issue a public notice to all persons on your facility/public mailing list (developed pursuant to 40 CFR 70.7(h), 71.11(d)(3)(i)(E) and 124.10(c)(1)(ix)) announcing the availability of the test plans and the location where the test plans are available for review. The test plans must be accessible to the public for 60 calendar days, beginning on the date that you issue your public notice. The location must be unrestricted and provide access to the public during reasonable hours and provide a means for the public to obtain copies. The notification must include the following information at a minimum:

(i) The name and telephone number of the source's contact person;

(ii) The name and telephone number of the regulatory agency's contact person;

(iii) The location where the test plans and any necessary supporting documentation can be reviewed and copied;

(iv) The time period for which the test plans will be available for public review; and

(v) An expected time period for commencement and completion of the performance test and CMS performance evaluation test.

(3) *Petitions for time extension if Administrator fails to approve or deny test plans.* You may petition the Administrator under §63.7(h) to obtain a “waiver” of any performance test—initial or periodic performance test; comprehensive or confirmatory test. The “waiver” would be implemented as an extension of time to conduct the performance test at a later date.

(i) *Qualifications for the waiver.* (A) You may not petition the Administrator for a waiver under this section if the Administrator has issued a notification of intent to deny your test plan(s) under §63.7(c)(3)(i)(B);

(B) You must submit a site-specific emissions testing plan and a continuous monitoring system performance evaluation test plan at least one year before a comprehensive performance test is scheduled to begin as required by paragraph (c)(1) of this section, or at least 60 days before a confirmatory performance test is scheduled to begin as required by paragraph (d) of this section. The test plans must include all required documentation, including the substantive content requirements of paragraph (f) of this section and §63.8(e); and

(C) You must make a good faith effort to accommodate the Administrator's comments on the test plans.

(ii) *Procedures for obtaining a waiver and duration of the waiver:* (A) You must submit to the Administrator a waiver petition or request to renew the petition under §63.7(h) separately for each source at least 60 days prior to the scheduled date of the performance test;

(B) The Administrator will approve or deny the petition within 30 days of receipt and notify you promptly of the decision;

(C) The Administrator will not approve an individual waiver petition for a duration exceeding 6 months;

(D) The Administrator will include a sunset provision in the waiver ending the waiver within 6 months;

(E) You may submit a revised petition to renew the waiver under §63.7(h)(3)(iii) at least 60 days prior to the end date of the most recently approved waiver petition;

(F) The Administrator may approve a revised petition for a total waiver period up to 12 months.

(iii) *Content of the waiver.* (A) You must provide documentation to enable the Administrator to determine that the source is meeting the relevant standard(s) on a continuous basis as required by §63.7(h)(2). For extension requests for the initial comprehensive performance test, you must submit your Documentation of Compliance to assist the Administrator in making this determination.

(B) You must include in the petition information justifying your request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test, as required by §63.7(h)(3)(iii).

(iv) *Public notice.* At the same time that you submit your petition to the Administrator, you must notify the public (e.g., distribute a notice to the facility/public mailing list developed pursuant to 40 CFR 70.7(h), 71.11(d)(3)(i)(E) and 124.10(c)(1)(ix)) of your petition to waive a performance test. The notification must include all of the following information at a minimum:

(A) The name and telephone number of the source's contact person;

(B) The name and telephone number of the regulatory agency's contact person;

(C) The date the source submitted its site-specific performance test plan and CMS performance evaluation test plans; and

(D) The length of time requested for the waiver.

(f) *Content of performance test plan.* The provisions of §§63.7(c)(2)(i)–(iii) and (v) regarding the content of the test plan apply. In addition, you must include the following information in the test plan:

(1) *Content of comprehensive performance test plan.* (i) An analysis of each feedstream, including hazardous waste, other fuels, and industrial furnace feedstocks, as fired, that includes:

(A) Heating value, levels of ash (for hazardous waste incinerators only), levels of semivolatile metals, low volatile metals, mercury, and total chlorine (organic and inorganic); and

(B) Viscosity or description of the physical form of the feedstream;

(ii) For organic hazardous air pollutants established by 42 U.S.C. 7412(b)(1), excluding caprolactam (CAS number 105602) as provided by §63.60:

(A) Except as provided by paragraph (f)(1)(ii)(D) of this section, an identification of such organic hazardous air pollutants that are present in each hazardous waste feedstream. You need not analyze for organic hazardous air pollutants that would reasonably not be expected to be found in the feedstream. You must identify any constituents you exclude from analysis and explain the basis for excluding them. You must conduct the feedstream analysis according to §63.1208(b)(8);

(B) An approximate quantification of such identified organic hazardous air pollutants in the hazardous waste feedstreams, within the precision produced by analytical procedures of §63.1208(b)(8); and

(C) A description of blending procedures, if applicable, prior to firing the hazardous waste feedstream, including a detailed analysis of the materials prior to blending, and blending ratios.

(D) The Administrator may approve on a case-by-case basis a hazardous waste feedstream analysis for organic hazardous air pollutants in lieu of the analysis required under paragraph (f)(1)(ii)(A) of this section if the reduced analysis is sufficient to ensure that the POHCs used to demonstrate compliance with the applicable DRE standards of this subpart continue to be representative of the most difficult to destroy organic compounds in your hazardous waste feedstreams;

(iii) A detailed engineering description of the hazardous waste combustor, including:

(A) Manufacturer's name and model number of the hazardous waste combustor;

(B) Type of hazardous waste combustor;

(C) Maximum design capacity in appropriate units;

(D) Description of the feed system for each feedstream;

(E) Capacity of each feed system;

(F) Description of automatic hazardous waste feed cutoff system(s);

(G) Description of the design, operation, and maintenance practices for any air pollution control system; and

(H) Description of the design, operation, and maintenance practices of any stack gas monitoring and pollution control monitoring systems;

(iv) 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;

(v) A detailed test schedule for each hazardous waste for which the performance test is planned, including date(s), duration, quantity of hazardous waste to be burned, and other relevant factors;

(vi) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feedrate for each feed system, and, as appropriate, the feedrates of other fuels and feedstocks, and any other relevant parameters that may affect the ability of the hazardous waste combustor to meet the emission standards;

(vii) A description of, and planned operating conditions for, any emission control equipment that will be used;

(viii) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction;

(ix) A determination of the hazardous waste residence time as required by §63.1206(b)(11);

(x) If you are requesting to extrapolate metal feedrate limits from comprehensive performance test levels under §§63.1209(l)(1)(v) or 63.1209(n)(2)(vii):

(A) A description of the extrapolation methodology and rationale for how the approach ensures compliance with the emission standards;

(B) Documentation of the historical range of normal (*i.e.*, other than during compliance testing) metals feedrates for each feedstream;

(C) Documentation that the level of spiking recommended during the performance test will mask sampling and analysis imprecision and inaccuracy to the extent that the extrapolated feedrate limits adequately assure compliance with the emission standards;

(xi) If you do not continuously monitor regulated constituents in natural gas, process air feedstreams, and feedstreams from vapor recovery systems under §63.1209(c)(5), you must include documentation of the expected levels of regulated constituents in those feedstreams;

(xii) Documentation justifying the duration of system conditioning required to ensure the combustor has achieved steady-state operations under performance test operating conditions, as provided by paragraph (g)(1)(iii) of this section;

(xiii) For cement kilns with in-line raw mills, if you elect to use the emissions averaging provision of this subpart, you must notify the Administrator of your intent in the initial (and subsequent) comprehensive performance test plan, and provide the information required by the emission averaging provision;

(xiv) For preheater or preheater/precalciner cement kilns with dual stacks, if you elect to use the emissions averaging provision of this subpart, you must notify the Administrator of your intent in the initial (and subsequent) comprehensive performance test plan, and provide the information required by the emission averaging provision;

(xv) If you request to use Method 23 for dioxin/furan you must provide the information required under §63.1208(b)(1)(i)(B);

(xvi) If you are not required to conduct performance testing to document compliance with the mercury, semivolatile metals, low volatile metals, or hydrogen chloride/chlorine gas emission standards under paragraph (m) of this section, you must include with the comprehensive performance test plan documentation of compliance with the provisions of that section.

(xvii) If you propose to use a surrogate for measuring or monitoring gas flowrate, you must document in the comprehensive performance test plan that the surrogate adequately correlates with gas flowrate, as required by paragraph (m)(7) of this section, and §63.1209(j)(2), (k)(3), (m)(2)(i), (n)(5)(i), and (o)(2)(i).

(xviii) You must submit an application to request alternative monitoring under §63.1209(g)(1) not later than with the comprehensive performance test plan, as required by §63.1209(g)(1)(iii)(A).

(xix) You must document the temperature location measurement in the comprehensive performance test plan, as required by §§63.1209(j)(1)(i) and 63.1209(k)(2)(i).

(xx) If your source is equipped with activated carbon injection, you must document in the comprehensive performance test plan:

(A) The manufacturer specifications for minimum carrier fluid flowrate or pressure drop, as required by §63.1209(k)(6)(ii); and

(B) Key parameters that affect carbon adsorption, and the operating limits you establish for those parameters based on the carbon used during the performance test, if you elect not to specify and use the

brand and type of carbon used during the comprehensive performance test, as required by §63.1209(k)(6)(iii).

(xxi) If your source is equipped with a carbon bed system, and you elect not to specify and use the brand and type of carbon used during the comprehensive performance test, you must include in the comprehensive performance test plan key parameters that affect carbon adsorption, and the operating limits you establish for those parameters based on the carbon used during the performance test, as required by §63.1209(k)(7)(ii).

(xxii) If you feed a dioxin/furan inhibitor into the combustion system, you must document in the comprehensive performance test plan key parameters that affect the effectiveness of the inhibitor, and the operating limits you establish for those parameters based on the inhibitor fed during the performance test, if you elect not to specify and use the brand and type of inhibitor used during the comprehensive performance test, as required by §63.1209(k)(9)(ii).

(xxiii) If your source is equipped with a wet scrubber and you elect to monitor solids content of the scrubber liquid manually but believe that hourly monitoring of solids content is not warranted, you must support an alternative monitoring frequency in the comprehensive performance test plan, as required by §63.1209(m)(1)(i)(B)(*1*)(*i*).

(xxiv) If your source is equipped with a particulate matter control device other than a wet scrubber, baghouse, or electrostatic precipitator, you must include in the comprehensive performance test plan:

(A) Documentation to support the operating parameter limits you establish for the control device, as required by §63.1209(m)(1)(iv)(A)(*4*); and

(B) Support for the use of manufacturer specifications if you recommend such specifications in lieu of basing operating limits on performance test operating levels, as required by §63.1209(m)(1)(iv)(D).

(xxv) If your source is equipped with a dry scrubber to control hydrogen chloride and chlorine gas, you must document in the comprehensive performance test plan key parameters that affect adsorption, and the limits you establish for those parameters based on the sorbent used during the performance test, if you elect not to specify and use the brand and type of sorbent used during the comprehensive performance test, as required by §63.1209(o)(4)(iii)(A); and

(xxvi) For purposes of calculating semivolatile metal, low volatile metal, mercury, and total chlorine (organic and inorganic), and ash feedrate limits, a description of how you will handle performance test feedstream analytical results that determines these constituents are not present at detectable levels.

(xxvii) Such other information as the Administrator reasonably finds necessary to determine whether to approve the performance test plan.

(2) *Content of confirmatory test plan.* (i) A description of your normal hydrocarbon or carbon monoxide operating levels, as specified in paragraph (g)(2)(i) of this section, and an explanation of how these normal levels were determined;

(ii) A description of your normal applicable operating parameter levels, as specified in paragraph (g)(2)(ii) of this section, and an explanation of how these normal levels were determined;

(iii) A description of your normal chlorine operating levels, as specified in paragraph (g)(2)(iii) of this section, and an explanation of how these normal levels were determined;

(iv) If you use carbon injection or a carbon bed, a description of your normal cleaning cycle of the particulate matter control device, as specified in paragraph (g)(2)(iv) of this section, and an explanation of how these normal levels were determined;

(v) 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;

(vi) A detailed test schedule for each hazardous waste for which the performance test is planned, including date(s), duration, quantity of hazardous waste to be burned, and other relevant factors;

(vii) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feedrate for each feed system, and, as appropriate, the feedrates of other fuels and feedstocks, and any other relevant parameters that may affect the ability of the hazardous waste combustor to meet the dioxin/furan emission standard;

(viii) A description of, and planned operating conditions for, any emission control equipment that will be used;

(ix) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction; and

(x) Such other information as the Administrator reasonably finds necessary to determine whether to approve the confirmatory test plan.

(g) *Operating conditions during testing.* You must comply with the provisions of §63.7(e). Conducting performance testing under operating conditions representative of the extreme range of normal conditions is consistent with the requirement of §63.7(e)(1) to conduct performance testing under representative operating conditions.

(1) *Comprehensive performance testing*—(i) *Operations during testing.* For the following parameters, you must operate the combustor during the performance test under normal conditions (or conditions that will result in higher than normal emissions):

(A) *Chlorine feedrate.* You must feed normal (or higher) levels of chlorine during the dioxin/furan performance test;

(B) *Ash feedrate.* For hazardous waste incinerators, you must conduct the following tests when feeding normal (or higher) levels of ash: The semivolatile metal and low volatile metal performance tests; and the dioxin/furan and mercury performance tests if activated carbon injection or a carbon bed is used; and

(C) *Cleaning cycle of the particulate matter control device.* You must conduct the following tests when the particulate matter control device undergoes its normal (or more frequent) cleaning cycle: The particulate matter, semivolatile metal, and low volatile metal performance tests; and the dioxin/furan and mercury performance tests if activated carbon injection or a carbon bed is used.

(ii) *Modes of operation.* Given that you must establish limits for the applicable operating parameters specified in §63.1209 based on operations during the comprehensive performance test, you may conduct testing under two or more operating modes to provide operating flexibility.

(iii) *Steady-state conditions.* (A) Prior to obtaining performance test data, you must operate under performance test conditions until you reach steady-state operations with respect to emissions of pollutants you must measure during the performance test and operating parameters under §63.1209 for which you

must establish limits. During system conditioning, you must ensure that each operating parameter for which you must establish a limit is held at the level planned for the performance test. You must include documentation in the performance test plan under paragraph (f) of this section justifying the duration of system conditioning.

(B) If you own or operate a hazardous waste cement kiln that recycles collected particulate matter (*i.e.,* cement kiln dust) into the kiln, you must sample and analyze the recycled particulate matter prior to obtaining performance test data for levels of selected metals that must be measured during performance testing to document that the system has reached steady-state conditions (*i.e.,* that metals levels have stabilized). You must document the rationale for selecting metals that are indicative of system equilibrium and include the information in the performance test plan under paragraph (f) of this section. To determine system equilibrium, you must sample and analyze the recycled particulate matter hourly for each selected metal, unless you submit in the performance test plan a justification for reduced sampling and analysis and the Administrator approves in writing a reduced sampling and analysis frequency.

(2) *Confirmatory performance testing.* You must conduct confirmatory performance testing for dioxin/furan under normal operating conditions for the following parameters:

(i) Carbon monoxide (or hydrocarbon) CEMS emissions levels must be within the range of the average value to the maximum value allowed, except as provided by paragraph (g)(2)(iv) of this section. The average value is defined as the sum of the hourly rolling average values recorded (each minute) over the previous 12 months, divided by the number of rolling averages recorded during that time. The average value must not include calibration data, startup data, shutdown data, malfunction data, and data obtained when not burning hazardous waste;

(ii) Each operating limit (specified in §63.1209) established to maintain compliance with the dioxin/furan emission standard must be held within the range of the average value over the previous 12 months and the maximum or minimum, as appropriate, that is allowed, except as provided by paragraph (g)(2)(iv) of this section. The average value is defined as the sum of the rolling average values recorded over the previous 12 months, divided by the number of rolling averages recorded during that time. The average value must not include calibration data, startup data, shutdown data, malfunction data, and data obtained when not burning hazardous waste;

(iii) You must feed chlorine at normal feedrates or greater; and

(iv) If the combustor is equipped with carbon injection or carbon bed, normal cleaning cycle of the particulate matter control device.

(v) The Administrator may approve an alternative range to that required by paragraphs (g)(2)(i) and (ii) of this section if you document in the confirmatory performance test plan that it may be problematic to maintain the required range during the test. In addition, when making the finding of compliance, the Administrator may consider test conditions outside of the range specified in the test plan based on a finding that you could not reasonably maintain the range specified in the test plan and considering factors including whether the time duration and level of the parameter when operations were out of the specified range were such that operations during the confirmatory test are determined to be reasonably representative of normal operations. In addition, the Administrator will consider the proximity of the emission test results to the standard.

(h) *Operating conditions during subsequent testing.* (1) Current operating parameter limits established under §63.1209 are waived during subsequent comprehensive performance testing.

(2) Current operating parameter limits are also waived during pretesting prior to comprehensive performance testing for an aggregate time not to exceed 720 hours of operation (renewable at the

discretion of the Administrator) under an approved test plan or if the source records the results of the pretesting. Pretesting means:

(i) Operations when stack emissions testing for dioxin/furan, mercury, semivolatile metals, low volatile metals, particulate matter, or hydrogen chloride/chlorine gas is being performed; and

(ii) Operations to reach steady-state operating conditions prior to stack emissions testing under paragraph (g)(1)(iii) of this section.

(i) *Time extension for subsequent performance tests.* After the initial comprehensive performance test, you may request up to a one-year time extension for conducting a comprehensive or confirmatory performance test to consolidate performance testing with other state or federally required emission testing, or for other reasons deemed acceptable by the Administrator. If the Administrator grants a time extension for a comprehensive performance test, the deadlines for commencing the next comprehensive and confirmatory tests are based on the date that the subject comprehensive performance test commences.

(1) You must submit in writing to the Administrator any request under this paragraph for a time extension for conducting a performance test.

(2) You must include in the request for an extension for conducting a performance test the following:

(i) A description of the reasons for requesting the time extension;

(ii) The date by which you will commence performance testing.

(3) The Administrator will notify you in writing of approval or intention to deny approval of your request for an extension for conducting a performance test within 30 calendar days after receipt of sufficient information to evaluate your request. The 30-day approval or denial period will begin after you have been notified in writing that your application is complete. The Administrator will notify you in writing 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 you submit.

(4) When notifying you that your application is not complete, the Administrator will specify the information needed to complete the application. The Administrator will also provide notice of opportunity for you to present, in writing, within 30 calendar days after notification of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(5) Before denying any request for an extension for performance testing, the Administrator will notify you in writing 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 you to present in writing, within 15 calendar days after notification of the intended denial, additional information or arguments to the Administrator before further action on the request.

(6) The Administrator's final determination to deny any request for an extension will be in writing and will set forth specific grounds upon which the denial is based. The final determination will be made within 30 calendar days after the 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.

(j) *Notification of compliance*—(1) *Comprehensive performance test.* (i) Except as provided by paragraphs (j)(4) and (j)(5) of this section, within 90 days of completion of a comprehensive performance

test, you must postmark a Notification of Compliance documenting compliance with the emission standards and continuous monitoring system requirements, and identifying operating parameter limits under §63.1209.

(ii) Upon postmark of the Notification of Compliance, you must comply with all operating requirements specified in the Notification of Compliance in lieu of the limits specified in the Documentation of Compliance required under §63.1211(c).

(2) *Confirmatory performance test.* Except as provided by paragraph (j)(4) of this section, within 90 days of completion of a confirmatory performance test, you must postmark a Notification of Compliance documenting compliance or noncompliance with the applicable dioxin/furan emission standard.

(3) See §§63.7(g), 63.9(h), and 63.1210(d) for additional requirements pertaining to the Notification of Compliance (*e.g.*, you must include results of performance tests in the Notification of Compliance).

(4) *Time extension.* You may submit a written request to the Administrator for a time extension documenting that, for reasons beyond your control, you may not be able to meet the 90-day deadline for submitting the Notification of Compliance after completion of testing. The Administrator will determine whether a time extension is warranted.

(5) *Early compliance.* If you conduct the initial comprehensive performance test prior to the compliance date, you must postmark the Notification of Compliance within 90 days of completion of the performance test or by the compliance date, whichever is later.

(k) *Failure to submit a timely notification of compliance.* (1) If you fail to postmark a Notification of Compliance by the specified date, you must cease hazardous waste burning immediately.

(2) Prior to submitting a revised Notification of Compliance as provided by paragraph (k)(3) of this section, you may burn hazardous waste only for the purpose of pretesting or comprehensive performance testing and only for a maximum of 720 hours (renewable at the discretion of the Administrator).

(3) You must submit to the Administrator a Notification of Compliance subsequent to a new comprehensive performance test before resuming hazardous waste burning.

(l) *Failure of performance test*—(1) *Comprehensive performance test.* The provisions of this paragraph do not apply to the initial comprehensive performance test if you conduct the test prior to your compliance date.

(i) If you determine (based on CEM recordings, results of analyses of stack samples, or results of CMS performance evaluations) that you have exceeded any emission standard during a comprehensive performance test for a mode of operation, you must cease hazardous waste burning immediately under that mode of operation. You must make this determination within 90 days following completion of the performance test.

(ii) If you have failed to demonstrate compliance with the emission standards for any mode of operation:

(A) Prior to submitting a revised Notification of Compliance as provided by paragraph (l)(1)(ii)(C) of this section, you may burn hazardous waste only for the purpose of pretesting or comprehensive performance testing under revised operating conditions, and only for a maximum of 720 hours (renewable at the discretion of the Administrator), except as provided by paragraph (l)(3) of this section;

(B) You must conduct a comprehensive performance test under revised operating conditions following the requirements for performance testing of this section; and

(C) You must submit to the Administrator a Notification of Compliance subsequent to the new comprehensive performance test.

(2) *Confirmatory performance test.* If you determine (based on CEM recordings, results of analyses of stack samples, or results of CMS performance evaluations) that you have failed the dioxin/furan emission standard during a confirmatory performance test, you must cease burning hazardous waste immediately. You must make this determination within 90 days following completion of the performance test. To burn hazardous waste in the future:

(i) You must submit to the Administrator for review and approval a test plan to conduct a comprehensive performance test to identify revised limits on the applicable dioxin/furan operating parameters specified in §63.1209(k);

(ii) You must submit to the Administrator a Notification of Compliance with the dioxin/furan emission standard under the provisions of paragraphs (j) and (k) of this section and this paragraph (l). You must include in the Notification of Compliance the revised limits on the applicable dioxin/furan operating parameters specified in §63.1209(k); and

(iii) Until the Notification of Compliance is submitted, you must not burn hazardous waste except for purposes of pretesting or confirmatory performance testing, and for a maximum of 720 hours (renewable at the discretion of the Administrator), except as provided by paragraph (l)(3) of this section.

(3) You may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. You must specify operating requirements, including limits on operating parameters, that you determine will ensure compliance with the emission standards of this subpart based on available information including data from the failed performance test. The Administrator will review, modify as necessary, and approve if warranted the interim operating requirements. An approval of interim operating requirements will include a schedule for submitting a Notification of Compliance.

(m) *Waiver of performance test.* (1) The waiver provision of this paragraph applies in addition to the provisions of §63.7(h).

(2) You are not required to conduct performance tests to document compliance with the mercury, semivolatile metals, low volatile metals, or hydrogen chloride/chlorine gas emission standards under the conditions specified in this paragraph (m)(2). You are deemed to be in compliance with an emission standard if the twelve-hour rolling average maximum theoretical emission concentration (MTEC) does not exceed the emission standard:

(i) Determine the feedrate of mercury, semivolatile metals, low volatile metals, or total chlorine and chloride from all feedstreams;

(ii) Determine the stack gas flowrate; and

(iii) Calculate a MTEC for each standard assuming all mercury, semivolatile metals, low volatile metals, or total chlorine (organic and inorganic) from all feedstreams is emitted;

(3) To document compliance with this provision, you must:

(i) Monitor and record the feedrate of mercury, semivolatile metals, low volatile metals, and total chlorine and chloride from all feedstreams according to §63.1209(c);

(ii) Monitor with a CMS and record in the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that you have correlated to gas flowrate);

(iii) Continuously calculate and record in the operating record the MTEC under the procedures of paragraph (m)(2) of this section; and

(iv) Interlock the MTEC calculated in paragraph (m)(2)(iii) of this section to the AWFCO system to stop hazardous waste burning when the MTEC exceeds the emission standard.

(4) In lieu of the requirement in paragraphs (m)(3)(iii) and (iv) of this section, you may:

(i) Identify in the Notification of Compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury, semivolatile metals, low volatile metals, and/or total chlorine and chloride from all feedstreams that ensures the MTEC as calculated in paragraph (m)(2)(iii) of this section is below the applicable emission standard; and

(ii) Interlock the minimum gas flowrate limit and maximum feedrate limit of paragraph (m)(4)(i) of this section to the AWFCO system to stop hazardous waste burning when the gas flowrate or mercury, semivolatile metals, low volatile metals, and/or total chlorine and chloride feedrate exceeds the limits of paragraph (m)(4)(i) of this section.

(5) When you determine the feedrate of mercury, semivolatile metals, low volatile metals, or total chlorine and chloride for purposes of this provision, except as provided by paragraph (m)(6) of this section, you must assume that the analyte is present at the full detection limit when the feedstream analysis determines that the analyte is not detected in the feedstream.

(6) Owners and operators of hazardous waste burning cement kilns and lightweight aggregate kilns may assume that mercury is present in raw material at half the detection limit when the raw material feedstream analysis determines that mercury is not detected.

(7) You must state in the site-specific test plan that you submit for review and approval under paragraph (e) of this section that you intend to comply with the provisions of this paragraph. You must include in the test plan documentation that any surrogate that is proposed for gas flowrate adequately correlates with the gas flowrate.

**[63.1208]**

**What are the test methods?**

(a) [Reserved]

(b) *Test methods.* You must use the following test methods to determine compliance with the emissions standards of this subpart:

(1) *Dioxins and furans.* (i) To determine compliance with the emission standard for dioxins and furans, you must use:

(A) Method 0023A, Sampling Method for Polychlorinated Dibenzo-*p*-Dioxins and Polychlorinated Dibenzofurans emissions from Stationary Sources, EPA Publication SW–846 (incorporated by reference— see §63.14); or

(B) Method 23, provided in appendix A, part 60 of this chapter, after approval by the Administrator.

(*1*) You may request approval to use Method 23 in the performance test plan required under §63.1207(e)(i) and (ii).

(*2*) In determining whether to grant approval to use Method 23, the Administrator may consider factors including whether dioxin/furan were detected at levels substantially below the emission standard in previous testing, and whether previous Method 0023 analyses detected low levels of dioxin/furan in the front half of the sampling train.

(*3*) Sources that emit carbonaceous particulate matter, such as coal-fired boilers, and sources equipped with activated carbon injection, will be deemed not suitable for use of Method 23 unless you document that there would not be a significant improvement in quality assurance with Method 0023A.

(ii) You must sample for a minimum of three hours, and you must collect a minimum sample volume of 2.5 dscm;

(iii) You may assume that nondetects are present at zero concentration.

(2) *Mercury.* You must use Method 29, provided in appendix A, part 60 of this chapter, to demonstrate compliance with emission standard for mercury.

(3) *Cadmium and lead.* You must use Method 29, provided in appendix A, part 60 of this chapter, to determine compliance with the emission standard for cadmium and lead (combined).

(4) *Arsenic, beryllium, and chromium.* You must use Method 29, provided in appendix A, part 60 of this chapter, to determine compliance with the emission standard for arsenic, beryllium, and chromium (combined).

(5) *Hydrogen chloride and chlorine gas*—(i) *Compliance with MACT standards*. To determine compliance with the emission standard for hydrogen chloride and chlorine gas (combined), you must use:

(A) Method 26/26A as provided in appendix A, part 60 of this chapter; or

(B) Methods 320 or 321 as provided in appendix A, part 63 of this chapter, or

(C) ASTM D 6735–01, Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method to measure emissions of hydrogen chloride, and Method 26/26A to measure emissions of chlorine gas, provided that you follow the provisions in paragraphs (b)(5)(C)(*1*) through (*6*) of this section. ASTM D 6735–01 is 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*) A test must include three or more runs in which a pair of samples is obtained simultaneously for each run according to section 11.2.6 of ASTM Method D6735–01.

(*2*) You must calculate the test run standard deviation of each set of paired samples to quantify data precision, according to Equation 1 of this section:

$$RSD_a = (100)\,\text{Absolute Value}\left[\frac{C1_a - C2_a}{C1_a + C2_a}\right] \qquad \text{(Eq. 1)}$$

Where:

$RSD_a$ = The test run relative standard deviation of sample pair a, percent.

$C1_a$ and $C2_a$ = The HCl concentrations, milligram/dry standard cubic meter (mg/dscm), from the paired samples.

(*3*) You must calculate the test average relative standard deviation according to Equation 2 of this section:

$$RSD_{TA} = \frac{\sum_{a=1}^{p} RSD_a}{p} \qquad (Eq\ 2)$$

Where:

$RSD_{TA}$ = The test average relative standard deviation, percent.

$RSD_a$ = The test run relative standard deviation for sample pair a.

p = The number of test runs, $=3.

(*4*) If RSDTA is greater than 20 percent, the data are invalid and the test must be repeated.

(*5*) The post-test analyte spike procedure of section 11.2.7 of ASTM Method D6735–01 is conducted, and the percent recovery is calculated according to section 12.6 of ASTM Method D6735–01.

(*6*) If the percent recovery is between 70 percent and 130 percent, inclusive, the test is valid. If the percent recovery is outside of this range, the data are considered invalid, and the test must be repeated.

(ii) *Compliance with risk-based limits under §63.1215.* To demonstrate compliance with emission limits established under §63.1215, you must use Method 26/26A as provided in appendix A, part 60 of this chapter, Method 320 as provided in appendix A, part 63 of this chapter, Method 321 as provided in appendix A, part 63 of this chapter, or ASTM D 6735–01, Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method (following the provisions of paragraphs (b)(5)(C)(*1*) through (*6*) of this section), except:

(A) For cement kilns and sources equipped with a dry acid gas scrubber, you must use Methods 320 or 321 as provided in appendix A, part 63 of this chapter, or ASTM D 6735–01 to measure hydrogen chloride, and the back-half, caustic impingers of Method 26/26A as provided in appendix A, part 60 of this chapter to measure chlorine gas; and

(B) For incinerators, boilers, and lightweight aggregate kilns, you must use Methods 320 or 321 as provided in appendix A, part 63 of this chapter, or ASTM D 6735–01 to measure hydrogen chloride, and Method 26/26A as provided in appendix A, part 60 of this chapter to measure total chlorine, and calculate chlorine gas by difference if:

(*1*) The bromine/chlorine ratio in feedstreams is greater than 5 percent; or

(*2*) The sulfur/chlorine ratio in feedstreams is greater than 50 percent.

(6) *Particulate matter.* You must use Methods 5 or 5I, provided in appendix A, part 60 of this chapter, to demonstrate compliance with the emission standard for particulate matter.

(7) *Other Test Methods.* You may use applicable test methods in EPA Publication SW-846, as incorporated by reference in paragraph (a) of this section, as necessary to demonstrate compliance with requirements of this subpart, except as otherwise specified in paragraphs (b)(2)–(b)(6) of this section.

(8) *Feedstream analytical methods.* You may use any reliable analytical method to determine feedstream concentrations of metals, chlorine, and other constituents. It is your responsibility to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream.

(9) *Opacity.* If you determine compliance with the opacity standard under the monitoring requirements of §§63.1209(a)(1)(iv) and (a)(1)(v), you must use Method 9, provided in appendix A, part 60 of this chapter.

**[63.1209]**

**What are the monitoring requirements?**

(a) *Continuous emissions monitoring systems (CEMS) and continuous opacity monitoring systems (COMS).* (1)(i) You must use either a carbon monoxide or hydrocarbon CEMS to demonstrate and monitor compliance with the carbon monoxide and hydrocarbon standard under this subpart. You must also use an oxygen CEMS to continuously correct the carbon monoxide or hydrocarbon level to 7 percent oxygen.

(ii) (A) *Cement kilns under §63.1204*—Except as provided by paragraphs (a)(1)(iv) and (a)(1)(v) of the section, you must use a COMS to demonstrate and monitor compliance with the opacity standard under §§63.1204(a)(7) and (b)(7) at each point where emissions are vented from these affected sources including the bypass stack of a preheater or preheater/precalciner kiln with dual stacks.

(B) *Cement kilns under §63.1220*—Except as provided by paragraphs (a)(1)(iv) and (a)(1)(v) of the section and unless your source is equipped with a bag leak detection system under §63.1206(c)(8) or a particulate matter detection system under §63.1206(c)(9), you must use a COMS to demonstrate and monitor compliance with the opacity standard under §§63.1220(a)(7) and (b)(7) at each point where emissions are vented from these affected sources including the bypass stack of a preheater or preheater/precalciner kiln with dual stacks.

(C) You must maintain and operate each COMS in accordance with the requirements of §63.8(c) except for the requirements under §63.8(c)(3). The requirements of §63.1211(c) shall be complied with instead of §63.8(c)(3); and

(D) Compliance is based on a six-minute block average.

(iii) You must install, calibrate, maintain, and operate a particulate matter CEMS to demonstrate and monitor compliance with the particulate matter standards under this subpart. However, compliance with the requirements in this section to install, calibrate, maintain and operate the PM CEMS is not required until such time that the Agency promulgates all performance specifications and operational requirements applicable to PM CEMS.

(iv) If you operate a cement kiln subject to the provisions of this subpart and use a fabric filter with multiple stacks or an electrostatic precipitator with multiple stacks, you may, in lieu of installing the COMS required by paragraph (a)(1)(ii) of this section, comply with the opacity standard in accordance with the procedures of Method 9 to part 60 of this chapter:

(A) You must conduct the Method 9 test while the affected source is operating at the highest load or capacity level reasonably expected to occur within the day;

(B) The duration of the Method 9 test shall be at least 30 minutes each day;

(C) You must use the Method 9 procedures to monitor and record the average opacity for each six-minute block period during the test; and

(D) To remain in compliance, all six-minute block averages must not exceed the opacity standard.

(v) If you operate a cement kiln subject to the provisions of this subpart and use a particulate matter control device that exhausts through a monovent, or if the use of a COMS in accordance with the installation specification of Performance Specification 1 (PS–1) of appendix B to part 60 of this chapter is not feasible, you may, in lieu of installing the COMS required by paragraph (a)(1)(ii) of this section, comply with the opacity standard in accordance with the procedures of Method 9 to part 60 of this chapter:

(A) You must conduct the Method 9 test while the affected source is operating at the highest load or capacity level reasonably expected to occur within the day;

(B) The duration of the Method 9 test shall be at least 30 minutes each day;

(C) You must use the Method 9 procedures to monitor and record the average opacity for each six-minute block period during the test; and

(D) To remain in compliance, all six-minute block averages must not exceed the opacity standard.

(2) *Performance specifications.* You must install, calibrate, maintain, and continuously operate the CEMS and COMS in compliance with the quality assurance procedures provided in the appendix to this subpart and Performance Specifications 1 (opacity), 4B (carbon monoxide and oxygen), and 8A (hydrocarbons) in appendix B, part 60 of this chapter.

(3) *Carbon monoxide readings exceeding the span.* (i) Except as provided by paragraph (a)(3)(ii) of this section, if a carbon monoxide CEMS detects a response that results in a one-minute average at or above the 3,000 ppmv span level required by Performance Specification 4B in appendix B, part 60 of this chapter, the one-minute average must be recorded as 10,000 ppmv. The one-minute 10,000 ppmv value must be used for calculating the hourly rolling average carbon monoxide level.

(ii) Carbon monoxide CEMS that use a span value of 10,000 ppmv when one-minute carbon monoxide levels are equal to or exceed 3,000 ppmv are not subject to paragraph (a)(3)(i) of this section. Carbon monoxide CEMS that use a span value of 10,000 are subject to the same CEMS performance and equipment specifications when operating in the range of 3,000 ppmv to 10,000 ppmv that are provided by Performance Specification 4B for other carbon monoxide CEMS, except:

(A) Calibration drift must be less than 300 ppmv; and

(B) Calibration error must be less than 500 ppmv.

(4) *Hydrocarbon readings exceeding the span.* (i) Except as provided by paragraph (a)(4)(ii) of this section, if a hydrocarbon CEMS detects a response that results in a one-minute average at or above the 100 ppmv span level required by Performance Specification 8A in appendix B, part 60 of this chapter, the one-minute average must be recorded as 500 ppmv. The one-minute 500 ppmv value must be used for calculating the hourly rolling average HC level.

(ii) Hydrocarbon CEMS that use a span value of 500 ppmv when one-minute hydrocarbon levels are equal to or exceed 100 ppmv are not subject to paragraph (a)(4)(i) of this section. Hydrocarbon CEMS that use a span value of 500 ppmv are subject to the same CEMS performance and equipment specifications when operating in the range of 100 ppmv to 500 ppmv that are provided by Performance Specification 8A for other hydrocarbon CEMS, except:

(A) The zero and high-level calibration gas must have a hydrocarbon level of between 0 and 100 ppmv, and between 250 and 450 ppmv, respectively;

(B) The strip chart recorder, computer, or digital recorder must be capable of recording all readings within the CEM measurement range and must have a resolution of 2.5 ppmv;

(C) The CEMS calibration must not differ by more than ±15 ppmv after each 24-hour period of the seven day test at both zero and high levels;

(D) The calibration error must be no greater than 25 ppmv; and

(E) The zero level, mid-level, and high level calibration gas used to determine calibration error must have a hydrocarbon level of 0–200 ppmv, 150–200 ppmv, and 350–400 ppmv, respectively.

(5) *Petitions to use CEMS for other standards.* You may petition the Administrator to use CEMS for compliance monitoring for particulate matter, mercury, semivolatile metals, low volatile metals, and hydrogen chloride and chlorine gas under §63.8(f) in lieu of compliance with the corresponding operating parameter limits under this section.

(6) *Calculation of rolling averages*—(i) *Calculation of rolling averages initially.* The carbon monoxide or hydrocarbon CEMS must begin recording one-minute average values by 12:01 a.m. and hourly rolling average values by 1:01 a.m., when 60 one-minute values will be available for calculating the initial hourly rolling average for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute and hourly rolling average values within 60 seconds and 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), respectively, from the time at which compliance begins.

(ii) *Calculation of rolling averages upon intermittent operations.* You must ignore periods of time when one-minute values are not available for calculating the hourly rolling average. When one-minute values become available again, the first one-minute value is added to the previous 59 values to calculate the hourly rolling average.

(iii) *Calculation of rolling averages when the hazardous waste feed is cutoff.* (A) Except as provided by paragraph (a)(6)(iii)(B) of this section, you must continue monitoring carbon monoxide and hydrocarbons when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if the emission levels exceed the standard.

(B) You are not subject to the CEMS requirements of this subpart during periods of time you meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste).

(7) *Operating parameter limits for hydrocarbons.* If you elect to comply with the carbon monoxide and hydrocarbon emission standard by continuously monitoring carbon monoxide with a CEMS, you must demonstrate that hydrocarbon emissions during the comprehensive performance test do not exceed the hydrocarbon emissions standard. In addition, the limits you establish on the destruction and removal efficiency (DRE) operating parameters required under paragraph (j) of this section also ensure that you maintain compliance with the hydrocarbon emission standard. If you do not conduct the hydrocarbon demonstration and DRE tests concurrently, you must establish separate operating parameter limits under paragraph (j) of this section based on each test and the more restrictive of the operating parameter limits applies.

(b) *Other continuous monitoring systems (CMS).* (1) You must use CMS (e.g., thermocouples, pressure transducers, flow meters) to document compliance with the applicable operating parameter limits under this section.

(2) Except as specified in paragraphs (b)(2)(i) and (ii) of this section, you must install and operate continuous monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires you, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system:

(i) *Calibration of thermocouples and pyrometers.* The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. You must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. You must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Administrator. And,

(ii) *Accuracy and calibration of weight measurement devices for activated carbon injection systems.* If you operate a carbon injection system, the accuracy of the weight measurement device must be ± 1 percent of the weight being measured. The calibration of the device must be verified at least once each calendar quarter at a frequency of approximately 120 days.

(3) CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds.

(4) The span of the non-CEMS CMS detector must not be exceeded. You must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3).

(5) *Calculation of rolling averages*—(i) *Calculation of rolling averages initially.* Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m.(e.g., when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m.(e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour hourly rolling average) respectively, from the time at which compliance begins.

(ii) *Calculation of rolling averages upon intermittent operations.* You must ignore periods of time when one-minute values are not available for calculating rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling averages.

(iii) *Calculation of rolling averages when the hazardous waste feed is cutoff.* (A) Except as provided by paragraph (b)(5)(iii)(B) of this section, you must continue monitoring operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if an operating parameter exceeds its limit.

(B) You are not subject to the CMS requirements of this subpart during periods of time you meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste).

(c) *Analysis of feedstreams*—(1) *General.* Prior to feeding the material, you must obtain an analysis of each feedstream that is sufficient to document compliance with the applicable feedrate limits provided by this section.

(2) *Feedstream analysis plan.* You must develop and implement a feedstream analysis plan and record it in the operating record. The plan must specify at a minimum:

(i) The parameters for which you will analyze each feedstream to ensure compliance with the operating parameter limits of this section;

(ii) Whether you will obtain the analysis by performing sampling and analysis or by other methods, such as using analytical information obtained from others or using other published or documented data or information;

(iii) How you will use the analysis to document compliance with applicable feedrate limits (*e.g.,* if you blend hazardous wastes and obtain analyses of the wastes prior to blending but not of the blended, as-fired, waste, the plan must describe how you will determine the pertinent parameters of the blended waste);

(iv) The test methods which you will use to obtain the analyses;

(v) The sampling method which you will use to obtain a representative sample of each feedstream to be analyzed using sampling methods described in appendix IX, part 266 of this chapter, or an equivalent method; and

(vi) The frequency with which you will review or repeat the initial analysis of the feedstream to ensure that the analysis is accurate and up to date.

(3) *Review and approval of analysis plan.* You must submit the feedstream analysis plan to the Administrator for review and approval, if requested.

(4) *Compliance with feedrate limits.* To comply with the applicable feedrate limits of this section, you must monitor and record feedrates as follows:

(i) Determine and record the value of the parameter for each feedstream by sampling and analysis or other method;

(ii) Determine and record the mass or volume flowrate of each feedstream by a CMS. If you determine flowrate of a feedstream by volume, you must determine and record the density of the feedstream by sampling and analysis (unless you report the constituent concentration in units of weight per unit volume (e.g., mg/l)); and

(iii) Calculate and record the mass feedrate of the parameter per unit time.

(5) *Waiver of monitoring of constituents in certain feedstreams.* You are not required to monitor levels of metals or chlorine in the following feedstreams to document compliance with the feedrate limits under this section provided that you document in the comprehensive performance test plan the expected levels of the constituent in the feedstream and account for those assumed feedrate levels in documenting compliance with feedrate limits: natural gas, process air, and feedstreams from vapor recovery systems.

(d) *Performance evaluations.* (1) The requirements of §§63.8(d) (Quality control program) and (e) (Performance evaluation of continuous monitoring systems) apply, except that you must conduct performance evaluations of components of the CMS under the frequency and procedures (for example,

submittal of performance evaluation test plan for review and approval) applicable to performance tests as provided by §63.1207.

(2) You must comply with the quality assurance procedures for CEMS prescribed in the appendix to this subpart.

(e) *Conduct of monitoring.* The provisions of §63.8(b) apply.

(f) *Operation and maintenance of continuous monitoring systems.* The provisions of §63.8(c) apply except:

(1) *Section 63.8(c)(3).* The requirements of §63.1211(c), that requires CMSs to be installed, calibrated, and operational on the compliance date, shall be complied with instead of section 63.8(c)(3);

(2) *Section 63.8(c)(4)(ii).* The performance specifications for carbon monoxide, hydrocarbon, and oxygen CEMSs in subpart B, part 60 of this chapter that requires detectors to measure the sample concentration at least once every 15 seconds for calculating an average emission rate once every 60 seconds shall be complied with instead of section 63.8(c)(4)(ii); and

(3) Sections 63.8(c)(4)(i), (c)(5), and (c)(7)(i)(C) pertaining to COMS apply only to owners and operators of hazardous waste burning cement kilns.

(g) *Alternative monitoring requirements other than continuous emissions monitoring systems (CEMS)*—(1) *Requests to use alternatives to operating parameter monitoring requirements.* (i) You may submit an application to the Administrator under this paragraph for approval of alternative operating parameter monitoring requirements to document compliance with the emission standards of this subpart. For requests to use additional CEMS, however, you must use paragraph (a)(5) of this section and §63.8(f). Alternative requests to operating parameter monitoring requirements that include unproven monitoring methods may not be made under this paragraph and must be made under §63.8(f).

(ii) You may submit an application to waive an operating parameter limit specified in this section based on documentation that neither that operating parameter limit nor an alternative operating parameter limit is needed to ensure compliance with the emission standards of this subpart.

(iii) You must comply with the following procedures for applications submitted under paragraphs (g)(1)(i) and (ii) of this section:

(A) *Timing of the application.* You must submit the application to the Administrator not later than with the comprehensive performance test plan.

(B) *Content of the application.* You must include in the application:

(*1*) Data or information justifying your request for an alternative monitoring requirement (or for a waiver of an operating parameter limit), such as the technical or economic infeasibility or the impracticality of using the required approach;

(*2*) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach/technique (*e.g.,* type of detector, monitoring location), the averaging period for the limit, and how the limit is to be calculated; and

(*3*) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard, or that it is the monitoring requirement that best assures compliance with the standard and that is technically and economically practicable.

(C) *Approval of request to use an alternative monitoring requirement or waive an operating parameter limit.* The Administrator will notify you of approval or intention to deny approval of the request within 90 calendar days after receipt of the original request and within 60 calendar days after receipt of any supplementary information that you submit. The Administrator will not approve an alternative monitoring request unless the alternative monitoring requirement provides equivalent or better assurance of compliance with the relevant emission standard, or is the monitoring requirement that best assures compliance with the standard and that is technically and economically practicable. Before disapproving any request, the Administrator will notify you of the Administrator's intention to disapprove the request together with:

(*1*) Notice of the information and findings on which the intended disapproval is based; and

(*2*) Notice of opportunity for you to present additional information to the Administrator before final action on the request. At the time the Administrator notifies you of intention to disapprove the request, the Administrator will specify how much time you will have after being notified of the intended disapproval to submit the additional information.

(D) *Responsibility of owners and operators.* You are responsible for ensuring that you submit any supplementary and additional information supporting your application in a timely manner to enable the Administrator to consider your application during review of the comprehensive performance test plan. Neither your submittal of an application, nor the Administrator's failure to approve or disapprove the application, relieves you of the responsibility to comply with the provisions of this subpart.

(iv) *Dual Standards that incorporate the Interim Standards for HAP metals.* (A) *Semivolatile and Low Volatile Metals.* You may petition the Administrator to waive a feedrate operating parameter limit under paragraph (n)(2) of this section for either the emission standards expressed in a thermal emissions format or the interim standards based on documentation that the feedrate operating parameter limit is not needed to ensure compliance with the relevant standard on a continuous basis.

(B) *Mercury.* You may petition the Administrator to waive a feedrate operating parameter limit under paragraph (l)(1) of this section for either the feed concentration standard under §§63.1220(a)(2)(i) and (b)(2)(i) or the interim standards based on documentation that the feedrate operating parameter limit is not needed to ensure compliance with the relevant standard on a continuous basis.

(2) *Administrator's discretion to specify additional or alternative requirements.* The Administrator may determine on a case-by-case basis at any time (e.g., during review of the comprehensive performance test plan, during compliance certification review) that you may need to limit additional or alternative operating parameters (e.g., opacity in addition to or in lieu of operating parameter limits on the particulate matter control device) or that alternative approaches to establish limits on operating parameters may be necessary to document compliance with the emission standards of this subpart.

(h) *Reduction of monitoring data.* The provisions of §63.8(g) apply.

(i) *When an operating parameter is applicable to multiple standards.* Paragraphs (j) through (p) of this section require you to establish limits on operating parameters based on comprehensive performance testing to ensure you maintain compliance with the emission standards of this subpart. For several parameters, you must establish a limit for the parameter to ensure compliance with more than one emission standard. An example is a limit on minimum combustion chamber temperature to ensure compliance with both the DRE standard of paragraph (j) of this section and the dioxin/furan standard of paragraph (k) of this section. If the performance tests for such standards are not performed simultaneously, the most stringent limit for a parameter derived from independent performance tests applies.

(j) *DRE.* To remain in compliance with the destruction and removal efficiency (DRE) standard, you must establish operating limits during the comprehensive performance test (or during a previous DRE test under provisions of §63.1206(b)(7)) for the following parameters, unless the limits are based on manufacturer specifications, and comply with those limits at all times that hazardous waste remains in the combustion chamber (*i.e.,* the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated):

(1) *Minimum combustion chamber temperature.* (i) You must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. You must document the temperature measurement location in the test plan you submit under §63.1207(e);

(ii) You must establish a minimum hourly rolling average limit as the average of the test run averages;

(2) *Maximum flue gas flowrate or production rate.* (i) As an indicator of gas residence time in the control device, you must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run.

(ii) You must comply with this limit on a hourly rolling average basis;

(3) *Maximum hazardous waste feedrate.* (i) You must establish limits on the maximum pumpable and total (i.e., pumpable and nonpumpable) hazardous waste feedrate for each location where hazardous waste is fed.

(ii) You must establish the limits as the average of the maximum hourly rolling averages for each run.

(iii) You must comply with the feedrate limit(s) on a hourly rolling average basis;

(4) *Operation of waste firing system.* You must specify operating parameters and limits to ensure that good operation of each hazardous waste firing system is maintained.

(k) *Dioxins and furans.* You must comply with the dioxin and furans emission standard by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications.

(1) *Gas temperature at the inlet to a dry particulate matter control device.* (i) For sources other than a lightweight aggregate kiln, if the combustor is equipped with an electrostatic precipitator, baghouse (fabric filter), or other dry emissions control device where particulate matter is suspended in contact with combustion gas, you must establish a limit on the maximum temperature of the gas at the inlet to the device on an hourly rolling average. You must establish the hourly rolling average limit as the average of the test run averages.

(ii) For hazardous waste burning lightweight aggregate kilns, you must establish a limit on the maximum temperature of the gas at the exit of the (last) combustion chamber (or exit of any waste heat recovery system) on an hourly rolling average. The limit must be established as the average of the test run averages;

(2) *Minimum combustion chamber temperature.* (i) For sources other than cement kilns, you must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. You must document the temperature measurement location in the test plan you submit under §§63.1207(e) and (f);

(ii) You must establish a minimum hourly rolling average limit as the average of the test run averages.

(3) *Maximum flue gas flowrate or production rate.* (i) As an indicator of gas residence time in the control device, you must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run.

(ii) You must comply with this limit on a hourly rolling average basis;

(4) *Maximum hazardous waste feedrate.* (i) You must establish limits on the maximum pumpable and total (pumpable and nonpumpable) hazardous waste feedrate for each location where waste is fed.

(ii) You must establish the limits as the average of the maximum hourly rolling averages for each run.

(iii) You must comply with the feedrate limit(s) on a hourly rolling average basis;

(5) *Particulate matter operating limit.* If your combustor is equipped with an activated carbon injection system, you must establish operating parameter limits on the particulate matter control device as specified by paragraph (m)(1) of this section;

(6) *Activated carbon injection parameter limits.* If your combustor is equipped with an activated carbon injection system:

(i) *Carbon feedrate.* You must establish a limit on minimum carbon injection rate on an hourly rolling average calculated as the average of the test run averages. If your carbon injection system injects carbon at more than one location, you must establish a carbon feedrate limit for each location.

(ii) *Carrier fluid.* You must establish a limit on minimum carrier fluid (gas or liquid) flowrate or pressure drop as an hourly rolling average based on the manufacturer's specifications. You must document the specifications in the test plan you submit under §§63.1207(e) and (f);

(iii) *Carbon specification.* (A) You must specify and use the brand (*i.e.,* manufacturer) and type of carbon used during the comprehensive performance test until a subsequent comprehensive performance test is conducted, unless you document in the site-specific performance test plan required under §§63.1207(e) and (f) key parameters that affect adsorption and establish limits on those parameters based on the carbon used in the performance test.

(B) You may substitute at any time a different brand or type of carbon provided that the replacement has equivalent or improved properties compared to the carbon used in the performance test and conforms to the key sorbent parameters you identify under paragraph (k)(6)(iii)(A) of this section. You must include in the operating record documentation that the substitute carbon will provide the same level of control as the original carbon.

(7) *Carbon bed parameter limits.* If your combustor is equipped with a carbon bed system:

(i) *Monitoring bed life.* You must:

(A) Monitor performance of the carbon bed consistent with manufacturer's specifications and recommendations to ensure the carbon bed (or bed segment for sources with multiple segments) has not reached the end of its useful life to minimize dioxin/furan and mercury emissions at least to the levels required by the emission standards;

(B) Document the monitoring procedures in the operation and maintenance plan;

(C) Record results of the performance monitoring in the operating record; and

(D) Replace the bed or bed segment before it has reached the end of its useful life to minimize dioxin/furan and mercury emissions at least to the levels required by the emission standards.

(ii) *Carbon specification.* (A) You must specify and use the brand (*i.e.,* manufacturer) and type of carbon used during the comprehensive performance test until a subsequent comprehensive performance test is conducted, unless you document in the site-specific performance test plan required under §§63.1207(e) and (f) key parameters that affect adsorption and establish limits on those parameters based on the carbon used in the performance test.

(B) You may substitute at any time a different brand or type of carbon provided that the replacement has equivalent or improved properties compared to the carbon used in the performance test. You must include in the operating record documentation that the substitute carbon will provide an equivalent or improved level of control as the original carbon.

(iii) *Maximum temperature.* You must measure the temperature of the carbon bed at either the bed inlet or exit and you must establish a maximum temperature limit on an hourly rolling average as the average of the test run averages.

(8) *Catalytic oxidizer parameter limits.* If your combustor is equipped with a catalytic oxidizer, you must establish limits on the following parameters:

(i) *Minimum flue gas temperature at the entrance of the catalyst.* You must establish a limit on minimum flue gas temperature at the entrance of the catalyst on an hourly rolling average as the average of the test run averages.

(ii) *Maximum time in-use.* You must replace a catalytic oxidizer with a new catalytic oxidizer when it has reached the maximum service time specified by the manufacturer.

(iii) *Catalyst replacement specifications.* When you replace a catalyst with a new one, the new catalyst must be equivalent to or better than the one used during the previous comprehensive test, as measured by:

(A) Catalytic metal loading for each metal;

(B) Space time, expressed in the units $s^{1-1}$, the maximum rated volumetric flow of combustion gas through the catalyst divided by the volume of the catalyst; and

(C) Substrate construction, including materials of construction, washcoat type, and pore density.

(iv) *Maximum flue gas temperature.* You must establish a maximum flue gas temperature limit at the entrance of the catalyst as an hourly rolling average, based on manufacturer's specifications.

(9) *Inhibitor feedrate parameter limits.* If you feed a dioxin/furan inhibitor into the combustion system, you must establish limits for the following parameters:

(i) *Minimum inhibitor feedrate.* You must establish a limit on minimum inhibitor feedrate on an hourly rolling average as the average of the test run averages.

(ii) *Inhibitor specifications.* (A) You must specify and use the brand (*i.e.,* manufacturer) and type of inhibitor used during the comprehensive performance test until a subsequent comprehensive performance test is conducted, unless you document in the site-specific performance test plan required under §§63.1207(e) and (f) key parameters that affect the effectiveness of the inhibitor and establish limits on those parameters based on the inhibitor used in the performance test.

(B) You may substitute at any time a different brand or type of inhibitor provided that the replacement has equivalent or improved properties compared to the inhibitor used in the performance test and conforms to the key parameters you identify under paragraph (k)(9)(ii)(A) of this section. You must include in the operating record documentation that the substitute inhibitor will provide the same level of control as the original inhibitor.

(l) *Mercury.* You must comply with the mercury emission standard by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications.

(1) *Feedrate of mercury.* (i) For incinerators and solid fuel boilers, when complying with the mercury emission standards under §§63.1203, 63.1216 and 63.1219, you must establish a 12-hour rolling average limit for the total feedrate of mercury in all feedstreams as the average of the test run averages.

(ii) For liquid fuel boilers, when complying with the mercury emission standards of §63.1217, you must establish a rolling average limit for the mercury feedrate as follows on an averaging period not to exceed an annual rolling average:

(A) You must calculate a mercury system removal efficiency for each test run and calculate the average system removal efficiency of the test run averages. If emissions exceed the mercury emission standard during the comprehensive performance test, it is not a violation because the averaging period for the mercury emission standard is (not-to-exceed) one year and compliance is based on compliance with the mercury feedrate limit with an averaging period not-to-exceed one year.

(B) If you burn hazardous waste with a heating value of 10,000 Btu/lb or greater, you must calculate the mercury feedrate limit as follows:

(*1*) The mercury feedrate limit is the emission standard divided by [1 !- system removal efficiency].

(*2*) The mercury feedrate limit is a hazardous waste thermal concentration limit expressed as pounds of mercury in hazardous waste feedstreams per million Btu of hazardous waste fired.

(*3*) You must comply with the hazardous waste mercury thermal concentration limit by determining the feedrate of mercury in all hazardous waste feedstreams (lb/hr) at least once a minute and the hazardous waste thermal feedrate (MM Btu/hr) at least once a minute to calculate a 60-minute average thermal emission concentration as [hazardous waste mercury feedrate (lb/hr) / hazardous waste thermal feedrate (MM Btu/hr)].

(*4*) You must calculate a rolling average hazardous waste mercury thermal concentration that is updated each hour.

(*5*) If you select an averaging period for the feedrate limit that is greater than a 12-hour rolling average, you must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by paragraph (b)(5)(i) of this section. You must calculate rolling averages thereafter as the average of the available one-minute values until enough one-minute values are available to calculate the rolling average period you select. At that time and thereafter, you update the rolling average feedrate each hour with a 60-minute average feedrate.

(C) If you burn hazardous waste with a heating value of less than 10,000 Btu/lb, you must calculate the mercury feedrate limit as follows:

(*1*) You must calculate the mercury feedrate limit as the mercury emission standard divided by [1 !- System Removal Efficiency].

(*2*) The feedrate limit is expressed as a mass concentration per unit volume of stack gas (µg/dscm) and is converted to a mass feedrate (lb/hr) by multiplying it by the average stack gas flowrate of the test run averages.

(*3*) You must comply with the feedrate limit by determining the mercury feedrate (lb/hr) at least once a minute to calculate a 60-minute average feedrate.

(*4*) You must update the rolling average feedrate each hour with this 60-minute feedrate measurement.

(*5*) If you select an averaging period for the feedrate limit that is greater than a 12-hour rolling average, you must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by paragraph (b)(5)(i) of this section. You must calculate rolling averages thereafter as the average of the available one-minute values until enough one-minute values are available to calculate the rolling average period you select. At that time and thereafter, you update the rolling average feedrate each hour with a 60-minute average feedrate.

(D) If your boiler is equipped with a wet scrubber, you must comply with the following unless you document in the performance test plan that you do not feed chlorine at rates that may substantially affect the system removal efficiency of mercury for purposes of establishing a mercury feedrate limit based on the system removal efficiency during the test:

(*1*) Scrubber blowdown must be minimized during a pretest conditioning period and during the performance test:

(*2*) Scrubber water must be preconditioned so that mercury in the water is at equilibrium with stack gas at the mercury feedrate level of the performance test; and

(*3*) You must establish an operating limit on minimum pH of scrubber water as the average of the test run averages and comply with the limit on an hourly rolling average.

(iii) For cement kilns:

(A) When complying with the emission standards under §§63.1220(a)(2)(i) and (b)(2)(i), you must:

(*1*) Comply with the mercury hazardous waste feed concentration operating requirement on a twelve-hour rolling average;

(*2*) Monitor and record in the operating record the as-fired mercury concentration in the hazardous waste (or the weighted-average mercury concentration for multiple hazardous waste feedstreams);

(*3*) Initiate an automatic waste feed cutoff that immediately and automatically cuts off the hazardous waste feed when the as-fired mercury concentration operating requirement is exceeded;

(B) When complying with the emission standards under §§63.1204, 63.1220(a)(2)(ii) and (b)(2)(ii), you must establish a 12-hour rolling average limit for the total feedrate of mercury in all feedstreams as the average of the test run averages;

(C) Except as provided by paragraph (l)(1)(iii)(D) of this section, when complying with the hazardous waste feedrate corresponding to a maximum theoretical emission concentration (MTEC) under §§63.1220(a)(2)(iii) and (b)(2)(iii), you must:

(*1*) Comply with the MTEC operating requirement on a twelve-hour rolling average;

(*2*) Monitor and record the feedrate of mercury for each hazardous waste feedstream according to §63.1209(c);

(*3*) Monitor with a CMS and record in the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that you have correlated to gas flowrate);

(*4*) Continuously calculate and record in the operating record a MTEC assuming mercury from all hazardous waste feedstreams is emitted;

(*5*) Initiate an automatic waste feed cutoff that immediately and automatically cuts off the hazardous waste feed when the MTEC operating requirement is exceeded;

(D) In lieu of complying with paragraph (l)(1)(iii)(C) of this section, you may:

(*1*) Identify in the Notification of Compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury from all hazardous waste feedstreams that ensures the MTEC calculated in paragraph (l)(1)(iii)(B)(*4*) of this section is below the operating requirement under paragraphs §§63.1220(a)(2)(iii) and (b)(2)(iii); and

(*2*) Initiate an automatic waste feed cutoff that immediately and automatically cuts off the hazardous waste feed when either the gas flowrate or mercury feedrate exceeds the limits identified in paragraph (l)(1)(iv)(D)(*1*) of this section.

(iv) For lightweight aggregate kilns:

(A) When complying with the emission standards under §§63.1205, 63.1221(a)(2)(i) and (b)(2)(i), you must establish a 12-hour rolling average limit for the total feedrate of mercury in all feedstreams as the average of the test run averages;

(B) Except as provided by paragraph (l)(1)(iv)(C) of this section, when complying with the hazardous waste feedrate corresponding to a maximum theoretical emission concentration (MTEC) under §§63.1221(a)(2)(ii) and (b)(2)(ii), you must:

(*1*) Comply with the MTEC operating requirement on a twelve-hour rolling average;

(*2*) Monitor and record the feedrate of mercury for each hazardous waste feedstream according to §63.1209(c);

(*3*) Monitor with a CMS and record in the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that you have correlated to gas flowrate);

(*4*) Continuously calculate and record in the operating record a MTEC assuming mercury from all hazardous waste feedstreams is emitted;

(*5*) Initiate an automatic waste feed cutoff that immediately and automatically cuts off the hazardous waste feed when the MTEC operating requirement is exceeded;

(C) In lieu of complying with paragraph (l)(1)(iv)(B) of this section, you may:

(*1*) Identify in the Notification of Compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury from all hazardous waste feedstreams that ensures the MTEC calculated in paragraph (l)(1)(iv)(B)(*4*) of this section is below the operating requirement under paragraphs §§63.1221(a)(2)(ii) and (b)(2)(ii); and

(*2*) Initiate an automatic waste feed cutoff that immediately and automatically cuts off the hazardous waste feed when either the gas flowrate or mercury feedrate exceeds the limits identified in paragraph (l)(1)(iv)(C)(*1*) of this section.

(v) *Extrapolation of feedrate levels.* In lieu of establishing mercury feedrate limits as specified in paragraphs (l)(1)(i) through (iv) of this section, you may request as part of the performance test plan under §§63.7(b) and (c) and §§63.1207 (e) and (f) to use the mercury feedrates and associated emission rates during the comprehensive performance test to extrapolate to higher allowable feedrate limits and emission rates. The extrapolation methodology will be reviewed and approved, as warranted, by the Administrator. The review will consider in particular whether:

(A) Performance test metal feedrates are appropriate (*i.e.*, whether feedrates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and

(B) Whether the extrapolated feedrates you request are warranted considering historical metal feedrate data.

(2) *Wet scrubber.* If your combustor is equipped with a wet scrubber, you must establish operating parameter limits prescribed by paragraph (o)(3) of this section, except for paragraph (o)(3)(iv).

(3) *Activated carbon injection.* If your combustor is equipped with an activated carbon injection system, you must establish operating parameter limits prescribed by paragraphs (k)(5) and (k)(6) of this section.

(4) *Activated carbon bed.* If your combustor is equipped with an activated carbon bed system, you must comply with the requirements of (k)(7) of this section to assure compliance with the mercury emission standard.

(m) *Particulate matter.* You must comply with the particulate matter emission standard by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications.

(1) *Control device operating parameter limits (OPLs).* (i) *Wet scrubbers.* For sources equipped with wet scrubbers, including ionizing wet scrubbers, high energy wet scrubbers such as venturi, hydrosonic, collision, or free jet wet scrubbers, and low energy wet scrubbers such as spray towers, packed beds, or tray towers, you must establish limits on the following parameters:

(A) For high energy scrubbers only, minimum pressure drop across the wet scrubber on an hourly rolling average, established as the average of the test run averages;

(B) For all wet scrubbers:

(*1*) To ensure that the solids content of the scrubber liquid does not exceed levels during the performance test, you must either:

(*i*) Establish a limit on solids content of the scrubber liquid using a CMS or by manual sampling and analysis. If you elect to monitor solids content manually, you must sample and analyze the scrubber liquid hourly unless you support an alternative monitoring frequency in the performance test plan that you submit for review and approval; or

(*ii*) Establish a minimum blowdown rate using a CMS and either a minimum scrubber tank volume or liquid level using a CMS.

(*2*) For maximum solids content monitored with a CMS, you must establish a limit on a twelve-hour rolling average as the average of the test run averages.

(*3*) For maximum solids content measured manually, you must establish an hourly limit, as measured at least once per hour, unless you support an alternative monitoring frequency in the performance test plan

that you submit for review and approval. You must establish the maximum hourly limit as the average of the manual measurement averages for each run.

(*4*) For minimum blowdown rate and either a minimum scrubber tank volume or liquid level using a CMS, you must establish a limit on an hourly rolling average as the average of the test run averages.

(C) For high energy wet scrubbers only, you must establish limits on either the minimum liquid to gas ratio or the minimum scrubber water flowrate and maximum flue gas flowrate on an hourly rolling average. If you establish limits on maximum flue gas flowrate under this paragraph, you need not establish a limit on maximum flue gas flowrate under paragraph (m)(2) of this section. You must establish these hourly rolling average limits as the average of the test run averages; and

(ii)–(iii) [Reserved]

(iv) *Other particulate matter control devices.* For each particulate matter control device that is not a fabric filter or high energy wet scrubber, or is not an electrostatic precipitator or ionizing wet scrubber for which you elect to monitor particulate matter loadings under §63.1206(c)(9) of this chapter for process control, you must ensure that the control device is properly operated and maintained as required by §63.1206(c)(7) and by monitoring the operation of the control device as follows:

(A) During each comprehensive performance test conducted to demonstrate compliance with the particulate matter emissions standard, you must establish a range of operating values for the control device that is a representative and reliable indicator that the control device is operating within the same range of conditions as during the performance test. You must establish this range of operating values as follows:

(*1*) You must select a set of operating parameters appropriate for the control device design that you determine to be a representative and reliable indicator of the control device performance.

(*2*) You must measure and record values for each of the selected operating parameters during each test run of the performance test. A value for each selected parameter must be recorded using a continuous monitor.

(*3*) For each selected operating parameter measured in accordance with the requirements of paragraph (m)(1)(iv)(A)(*1*) of this section, you must establish a minimum operating parameter limit or a maximum operating parameter limit, as appropriate for the parameter, to define the operating limits within which the control device can operate and still continuously achieve the same operating conditions as during the performance test.

(*4*) You must prepare written documentation to support the operating parameter limits established for the control device and you must include this documentation in the performance test plan that you submit for review and approval. This documentation must include a description for each selected parameter and the operating range and monitoring frequency required to ensure the control device is being properly operated and maintained.

(B) You must install, calibrate, operate, and maintain a monitoring device equipped with a recorder to measure the values for each operating parameter selected in accordance with the requirements of paragraph (m)(1)(iv)(A)(*1*) of this section. You must install, calibrate, and maintain the monitoring equipment in accordance with the equipment manufacturer's specifications. The recorder must record the detector responses at least every 60 seconds, as required in the definition of continuous monitor.

(C) You must regularly inspect the data recorded by the operating parameter monitoring system at a sufficient frequency to ensure the control device is operating properly. An excursion is determined to have occurred any time that the actual value of a selected operating parameter is less than the minimum operating limit (or, if applicable, greater than the maximum operating limit) established for the parameter in accordance with the requirements of paragraph (m)(1)(iv)(A)(3) of this section.

(D) Operating parameters selected in accordance with paragraph (m)(1)(iv) of this section may be based on manufacturer specifications provided you support the use of manufacturer specifications in the performance test plan that you submit for review and approval.

(2) *Maximum flue gas flowrate or production rate.* (i) As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run.

(ii) You must comply with this limit on a hourly rolling average basis;

(3) *Maximum ash feedrate.* Owners and operators of hazardous waste incinerators, solid fuel boilers, and liquid fuel boilers must establish a maximum ash feedrate limit as a 12-hour rolling average based on the average of the test run averages. This requirement is waived, however, if you comply with the particulate matter detection system requirements under §63.1206(c)(9).

(n) *Semivolatile metals and low volatility metals.* You must comply with the semivolatile metal (cadmium and lead) and low volatile metal (arsenic, beryllium, and chromium) emission standards by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications.

(1) *Maximum inlet temperature to dry particulate matter air pollution control device.* You must establish a limit on the maximum inlet temperature to the primary dry metals emissions control device (*e.g.,* electrostatic precipitator, baghouse) on an hourly rolling average basis as the average of the test run averages.

(2) *Maximum feedrate of semivolatile and low volatile metals.* (i) *General.* You must establish feedrate limits for semivolatile metals (cadmium and lead) and low volatile metals (arsenic, beryllium, and chromium) as follows, except as provided by paragraph (n)(2)(vii) of this section.

(ii) For incinerators, cement kilns, and lightweight aggregate kilns, when complying with the emission standards under §§63.1203, 63.1204, 63.1205, and 63.1219, and for solid fuel boilers when complying with the emission standards under §63.1216, you must establish 12-hour rolling average limits for the total feedrate of semivolatile and low volatile metals in all feedstreams as the average of the test run averages.

(iii) *Cement kilns under §63.1220*—(A) When complying with the emission standards under §§63.1220(a)(3)(i), (a)(4)(i), (b)(3)(i), and (b)(4)(i), you must establish 12-hour rolling average feedrate limits for semivolatile and low volatile metals as the thermal concentration of semivolatile metals or low volatile metals in all hazardous waste feedstreams. You must calculate hazardous waste thermal concentrations for semivolatile metals and low volatile metals for each run as the total mass feedrate of semivolatile metals or low volatile metals for all hazardous waste feedstreams divided by the total heat input rate for all hazardous waste feedstreams. The 12-hour rolling average feedrate limits for semivolatile metals and low volatile metals are the average of the hazardous waste thermal concentrations for the runs.

(B) When complying with the emission standards under §§63.1220(a)(3)(ii), (a)(4)(ii), (b)(3)(ii), and (b)(4)(ii), you must establish 12-hour rolling average limits for the total feedrate of semivolatile and low volatile metals in all feedstreams as the average of the test run averages.

(iv) *Lightweight aggregate kilns under §63.1221*—(A) When complying with the emission standards under §§63.1221(a)(3)(i), (a)(4)(i), (b)(3)(i), and (b)(4)(i), you must establish 12-hour rolling average feedrate limits for semivolatile and low volatile metals as the thermal concentration of semivolatile metals or low volatile metals in all hazardous waste feedstreams as specified in paragraphs (n)(2)(iii)(A) of this section.

(B) When complying with the emission standards under §§63.1221(a)(3)(ii), (a)(4)(ii), (b)(3)(ii), and (b)(4)(ii), you must establish 12-hour rolling average limits for the total feedrate of semivolatile and low volatile metals in all feedstreams as the average of the test run averages.

(v) *Liquid fuel boilers under §63.1217.* (A) *Semivolatile metals.* You must establish a rolling average limit for the semivolatile metal feedrate as follows on an averaging period not to exceed an annual rolling average.

(*1*) *System removal efficiency.* You must calculate a semivolatile metal system removal efficiency for each test run and calculate the average system removal efficiency of the test run averages. If emissions exceed the semivolatile metal emission standard during the comprehensive performance test, it is not a violation because the averaging period for the semivolatile metal emission standard is one year and compliance is based on compliance with the semivolatile metal feedrate limit that has an averaging period not to exceed an annual rolling average.

(*2*) *Boilers that feed hazardous waste with a heating value of 10,000 Btu/lb or greater.* You must calculate the semivolatile metal feedrate limit as the semivolatile metal emission standard divided by [1 !- System Removal Efficiency].

(*i*) The feedrate limit is a hazardous waste thermal concentration limit expressed as pounds of semivolatile metals in all hazardous waste feedstreams per million Btu of hazardous waste fed to the boiler.

(*ii*) You must comply with the hazardous waste semivolatile metal thermal concentration limit by determining the feedrate of semivolatile metal in all hazardous waste feedstreams (lb/hr) and the hazardous waste thermal feedrate (MM Btu/hr) at least once a minute to calculate a 60-minute average thermal emission concentration as [hazardous waste semivolatile metal feedrate (lb/hr) / hazardous waste thermal feedrate (MM Btu/hr)].

(*iii*) You must calculate a rolling average hazardous waste semivolatile metal thermal concentration that is updated each hour.

(*iv*) If you select an averaging period for the feedrate limit that is greater than a 12-hour rolling average, you must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by paragraph (b)(5)(i) of this section. You must calculate rolling averages thereafter as the average of the available one-minute values until enough one-minute values are available to calculate the rolling average period you select. At that time and thereafter, you update the rolling average feedrate each hour with a 60-minute average feedrate.

(*3*) *Boilers that feed hazardous waste with a heating value less than 10,000 Btu/lb.* (*i*) You must calculate the semivolatile metal feedrate limit as the semivolatile metal emission standard divided by [1 !- System Removal Efficiency].

(*ii*) The feedrate limit is expressed as a mass concentration per unit volume of stack gas (µg/dscm) and is converted to a mass feedrate (lb/hr) by multiplying it by the average stack gas flowrate (dscm/hr) of the test run averages.

(*iii*) You must comply with the feedrate limit by determining the semivolatile metal feedrate (lb/hr) at least once a minute to calculate a 60-minute average feedrate.

(*iv*) You must update the rolling average feedrate each hour with this 60-minute feedrate measurement.

(*v*) If you select an averaging period for the feedrate limit that is greater than a 12-hour rolling average, you must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by paragraph (b)(5)(i) of this section. You must calculate rolling averages thereafter as the

average of the available one-minute values until enough one-minute values are available to calculate the rolling average period you select. At that time and thereafter, you update the rolling average feedrate each hour with a 60-minute average feedrate.

(B) *Chromium. (1) Boilers that feed hazardous waste with a heating value of 10,000 Btu/lb or greater.* (*i*) The feedrate limit is a hazardous waste thermal concentration limit expressed as pounds of chromium in all hazardous waste feedstreams per million Btu of hazardous waste fed to the boiler.

(*ii*) You must comply with the hazardous waste chromium thermal concentration limit by determining the feedrate of chromium in all hazardous waste feedstreams (lb/hr) and the hazardous waste thermal feedrate (MM Btu/hr) at least once a minute to calculate a 60-minute average thermal emission concentration as [hazardous waste chromium feedrate (lb/hr) / hazardous waste thermal feedrate (MM Btu/hr)]. You must update the rolling average feedrate each hour with this 60-minute average feedrate measurement.

(*2*) *Boilers that feed hazardous waste with a heating value less than 10,000 Btu/lb.* You must establish a 12-hour rolling average limit for the total feedrate (lb/hr) of chromium in all feedstreams as the average of the test run averages. You must update the rolling average feedrate each hour with a 60-minute average feedrate measurement.

(vi) *LVM limits for pumpable wastes.* You must establish separate feedrate limits for low volatile metals in pumpable feedstreams using the procedures prescribed above for total low volatile metals. Dual feedrate limits for both pumpable and total feedstreams are not required, however, if you base the total feedrate limit solely on the feedrate of pumpable feedstreams.

(vii) *Extrapolation of feedrate levels.* In lieu of establishing feedrate limits as specified in paragraphs (l)(1)(i) through (iii) of this section, you may request as part of the performance test plan under §§63.7(b) and (c) and §§63.1207(e) and (f) to use the semivolatile metal and low volatile metal feedrates and associated emission rates during the comprehensive performance test to extrapolate to higher allowable feedrate limits and emission rates. The extrapolation methodology will be reviewed and approved, as warranted, by the Administrator. The review will consider in particular whether:

(A) Performance test metal feedrates are appropriate (*i.e.*, whether feedrates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and

(B) Whether the extrapolated feedrates you request are warranted considering historical metal feedrate data.

(3) *Control device operating parameter limits (OPLs).* You must establish operating parameter limits on the particulate matter control device as specified by paragraph (m)(1) of this section;

(4) *Maximum total chlorine and chloride feedrate.* You must establish a 12-hour rolling average limit for the feedrate of total chlorine and chloride in all feedstreams as the average of the test run averages.

(5) *Maximum flue gas flowrate or production rate.* (i) As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run.

(ii) You must comply with this limit on a hourly rolling average basis.

(o) *Hydrogen chloride and chlorine gas.* You must comply with the hydrogen chloride and chlorine gas emission standard by establishing and complying with the following operating parameter limits. You must

base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications.

(1) *Feedrate of total chlorine and chloride.* (i) *Incinerators, cement kilns, lightweight aggregate kilns, solid fuel boilers, and hydrochloric acid production furnaces.* You must establish a 12-hour rolling average limit for the total feedrate of chlorine (organic and inorganic) in all feedstreams as the average of the test run averages.

(ii) *Liquid fuel boilers.* (A) *Boilers that feed hazardous waste with a heating value not less than 10,000 Btu/lb.* (*1*) The feedrate limit is a hazardous waste thermal concentration limit expressed as pounds of chlorine (organic and inorganic) in all hazardous waste feedstreams per million Btu of hazardous waste fed to the boiler.

(*2*) You must establish a 12-hour rolling average feedrate limit as the average of the test run averages.

(*3*) You must comply with the feedrate limit by determining the mass feedrate of hazardous waste feedstreams (lb/hr) at least once a minute and by knowing the chlorine (organic and inorganic) content and heating value (million Btu/lb) of hazardous waste feedstreams at all times to calculate a 60-minute average feedrate measurement as [hazardous waste chlorine feedrate (lb/hr) / hazardous waste thermal feedrate (million Btu/hr)]. You must update the rolling average feedrate each hour with this 60-minute average feedrate measurement.

(B) *Boilers that feed hazardous waste with a heating value less than 10,000 Btu/lb.* You must establish a 12-hour rolling average limit for the total feedrate of chlorine (organic and inorganic) in all feedstreams as the average of the test run averages. You must update the rolling average feedrate each hour with a 60-minute average feedrate measurement.

(2) *Maximum flue gas flowrate or production rate.* (i) As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run.

(ii) You must comply with this limit on a hourly rolling average basis;

(3) *Wet scrubber.* If your combustor is equipped with a wet scrubber:

(i) If your source is equipped with a high energy wet scrubber such as a venturi, hydrosonic, collision, or free jet wet scrubber, you must establish a limit on minimum pressure drop across the wet scrubber on an hourly rolling average as the average of the test run averages;

(ii) If your source is equipped with a low energy wet scrubber such as a spray tower, packed bed, or tray tower, you must establish a minimum pressure drop across the wet scrubber based on manufacturer's specifications. You must comply with the limit on an hourly rolling average;

(iii) If your source is equipped with a low energy wet scrubber, you must establish a limit on minimum liquid feed pressure to the wet scrubber based on manufacturer's specifications. You must comply with the limit on an hourly rolling average;

(iv) You must establish a limit on minimum pH on an hourly rolling average as the average of the test run averages;

(v) You must establish limits on either the minimum liquid to gas ratio or the minimum scrubber water flowrate and maximum flue gas flowrate on an hourly rolling average as the average of the test run averages. If you establish limits on maximum flue gas flowrate under this paragraph, you need not establish a limit on maximum flue gas flowrate under paragraph (o)(2) of this section; and

(4) *Dry scrubber.* If your combustor is equipped with a dry scrubber, you must establish the following operating parameter limits:

(i) *Minimum sorbent feedrate.* You must establish a limit on minimum sorbent feedrate on an hourly rolling average as the average of the test run averages.

(ii) *Minimum carrier fluid flowrate or nozzle pressure drop.* You must establish a limit on minimum carrier fluid (gas or liquid) flowrate or nozzle pressure drop based on manufacturer's specifications.

(iii) *Sorbent specifications.* (A) You must specify and use the brand (*i.e.,* manufacturer) and type of sorbent used during the comprehensive performance test until a subsequent comprehensive performance test is conducted, unless you document in the site-specific performance test plan required under §§63.1207(e) and (f) key parameters that affect adsorption and establish limits on those parameters based on the sorbent used in the performance test.

(B) You may substitute at any time a different brand or type of sorbent provided that the replacement has equivalent or improved properties compared to the sorbent used in the performance test and conforms to the key sorbent parameters you identify under paragraph (o)(4)(iii)(A) of this section. You must record in the operating record documentation that the substitute sorbent will provide the same level of control as the original sorbent.

(p) *Maximum combustion chamber pressure.* If you comply with the requirements for combustion system leaks under §63.1206(c)(5) by maintaining the maximum combustion chamber zone pressure lower than ambient pressure to prevent combustion systems leaks from hazardous waste combustion, you must perform instantaneous monitoring of pressure and the automatic waste feed cutoff system must be engaged when negative pressure is not adequately maintained.

(q) *Operating under different modes of operation.* If you operate under different modes of operation, you must establish operating parameter limits for each mode. You must document in the operating record when you change a mode of operation and begin complying with the operating limits for an alternative mode of operation.

(1) *Operating under otherwise applicable standards after the hazardous waste residence time has transpired.* As provided by §63.1206(b)(1)(ii), you may operate under otherwise applicable requirements promulgated under sections 112 and 129 of the Clean Air Act in lieu of the substantive requirements of this subpart.

(i) The otherwise applicable requirements promulgated under sections 112 and 129 of the Clean Air Act are applicable requirements under this subpart.

(ii) You must specify (e.g., by reference) the otherwise applicable requirements as a mode of operation in your Documentation of Compliance under §63.1211(c), your Notification of Compliance under §63.1207(j), and your title V permit application. These requirements include the otherwise applicable requirements governing emission standards, monitoring and compliance, and notification, reporting, and recordkeeping.

(2) *Calculating rolling averages under different modes of operation.* When you transition to a different mode of operation, you must calculate rolling averages as follows:

(i) *Retrieval approach.* Calculate rolling averages anew using the continuous monitoring system values previously recorded for that mode of operation (i.e., you ignore continuous monitoring system values subsequently recorded under other modes of operation when you transition back to a mode of operation); or

(ii) *Start anew.* Calculate rolling averages anew without considering previous recordings.

(A) Rolling averages must be calculated as the average of the available one-minute values for the parameter until enough one-minute values are available to calculate hourly or 12-hour rolling averages, whichever is applicable to the parameter.

(B) You may not transition to a new mode of operation using this approach if the most recent operation in that mode resulted in an exceedance of an applicable emission standard measured with a CEMS or operating parameter limit prior to the hazardous waste residence time expiring; or

(iii) *Seamless transition.* Continue calculating rolling averages using data from the previous operating mode provided that both the operating limit and the averaging period for the parameter are the same for both modes of operation.

(r) *Averaging periods.* The averaging periods specified in this section for operating parameters are not-to-exceed averaging periods. You may elect to use shorter averaging periods. For example, you may elect to use a 1-hour rolling average rather than the 12-hour rolling average specified in paragraph (l)(1)(i) of this section for mercury.

**[63.1210]**

**What are the notification requirements?**

(a) *Summary of requirements.* (1) You must submit the following notifications to the Administrator:

| Reference | Notification |
|---|---|
| 63.9(b)..... | Initial notifications that you are subject to Subpart EEE of this Part. |
| 63.9(d)..... | Notification that you are subject to special compliance requirements. |
| 63.9(j)..... | Notification and documentation of any change in information already provided under § 63.9. |
| 63.1206(b)(5)(i)..... | Notification of changes in design, operation, or maintenance. |
| 63.1206(c)(7)(ii)(C)..... | Notification of excessive bag leak detection system exceedances. |
| 63.1207(e), 63.9(e) 63.9(g)(1) and (3)..... | Notification of performance test and continuous monitoring system evaluation, including the performance test plan and CMS performance evaluation plan.\1\ |
| 63.1210(b)..... | Notification of intent to comply. |
| 63.1210(d), 63.1207(j), 63.1207(k), ..... | Notification of compliance, including results |

| | |
|---|---|
| 63.1207(l), 63.9(h), 63.10(d)(2), 63.10(e)(2). | of performance tests and continuous monitoring system performance evaluations. |

\1\ You may also be required on a case-by-case basis to submit a feedstream analysis plan under § 63.1209(c)(3).

(2) You must submit the following notifications to the Administrator if you request or elect to comply with alternative requirements:

| Reference | Notification, request, petition, or application |
|---|---|
| 63.9(i) | You may request an adjustment to time periods or postmark deadlines for submittal and review of required information. |
| 63.10(e)(3)(ii) | You may request to reduce the frequency of excess emissions and CMS performance reports. |
| 63.10(f) | You may request to waive recordkeeping or reporting requirements. |
| 63.1204(d)(2)(iii), 63.1220(d)(2)(iii) | Notification that you elect to comply with the emission averaging requirements for cement kilns with in-line raw mills. |
| 63.1204(e)(2)(iii), 63.1220(e)(2)(iii) | Notification that you elect to comply with the emission averaging requirements for preheater or preheater/precalciner kilns with dual stacks. |
| 63.1206(b)(4), 63.1213, 63.6(i), 63.9(c) | You may request an extension of the compliance date for up to one year. |
| 63.1206(b)(5)(i)(C) | You may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting after making a change in the design or operation that could affect compliance with emission standards and prior to submitting a revised Notification of Compliance. |
| 63.1206(b)(8)(iii)(B) | If you elect to conduct particulate matter CEMS correlation testing and wish to have federal particulate matter and opacity standards and associated operating limits waived during the testing, you must notify the Administrator by submitting the correlation test plan for review and approval. |
| 63.1206(b)(8)(v) | You may request approval to have the particulate matter and opacity standards and associated |

| | |
|---|---|
| | operating limits and conditions waived for more than 96 hours for a correlation test. |
| 63.1206(b)(9)..... | Owners and operators of lightweight aggregate kilns may request approval of alternative emission standards for mercury, semivolatile metal, low volatile metal, and hydrogen chloride/chlorine gas under certain conditions. |
| 63.1206(b)(10)..... | Owners and operators of cement kilns may request approval of alternative emission standards for mercury, semivolatile metal, low volatile metal, and hydrogen chloride/chlorine gas under certain conditions. |
| 63.1206(b)(14)..... | Owners and operators of incinerators may elect to comply with an alternative to the particulate matter standard. |
| 63.1206(b)(15)..... | Owners and operators of cement and lightweight aggregate kilns may request to comply with the alternative to the interim standards for mercury. |
| 63.1206(c)(2)(ii)(C)..... | You may request to make changes to the startup, shutdown, and malfunction plan. |
| 63.1206(c)(5)(i)(C)..... | You may request an alternative means of control to provide control of combustion system leaks. |
| 63.1206(c)(5)(i)(D)..... | You may request other techniques to prevent fugitive emissions without use of instantaneous pressure limits. |
| 63.1207(c)(2)..... | You may request to base initial compliance on data in lieu of a comprehensive performance test. |
| 63.1207(d)(3)..... | You may request more than 60 days to complete a performance test if additional time is needed for reasons beyond your control. |
| 63.1207(e)(3), 63.7(h)..... | You may request a time extension if the Administrator fails to approve or deny your test plan. |
| 63.1207(h)(2)..... | You may request to waive current operating parameter limits during pretesting for more than 720 hours. |
| 63.1207(f)(1)(ii)(D)..... | You may request a reduced hazardous waste feedstream analysis for organic hazardous air pollutants if the reduced analysis continues to be representative of organic hazardous air pollutants in your hazardous waste feedstreams. |

| | |
|---|---|
| 63.1207(g)(2)(v)..... | You may request to operate under a wider operating range for a parameter during confirmatory performance testing. |
| 63.1207(i)..... | You may request up to a one-year time extension for conducting a performance test (other than the initial comprehensive performance test) to consolidate testing with other state or federally-required testing. |
| 63.1207(j)(4)..... | You may request more than 90 days to submit a Notification of Compliance after completing a performance test if additional time is needed for reasons beyond your control. |
| 63.1207(l)(3)..... | After failure of a performance test, you may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting. |
| 63.1209(a)(5), 63.8(f)..... | You may request: (1) Approval of alternative monitoring methods for compliance with standards that are monitored with a CEMS; and (2) approval to use a CEMS in lieu of operating parameter limits. |
| 63.1209(g)(1)..... | You may request approval of: (1) Alternatives to operating parameter monitoring requirements, except for standards that you must monitor with a continuous emission monitoring system (CEMS) and except for requests to use a CEMS in lieu of operating parameter limits; or (2) a waiver of an operating parameter limit. |
| 63.1209(l)(1)..... | You may request to extrapolate mercury feedrate limits. |
| 63.1209(n)(2)..... | You may request to extrapolate semivolatile and low volatile metal feedrate limits. |
| 63.1211(d)..... | You may request to use data compression techniques to record data on a less frequent basis than required by § 63.1209. |

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(b) *Notification of intent to comply (NIC).* These procedures apply to sources that have not previously complied with the requirements of paragraph (b) of this section, and to sources that previously complied with the NIC requirements of §63.1210, which were in effect prior to October 11, 2000, that must make a technology change requiring a Class 1 permit modification to meet the standards of §§63.1219, 63.1220, and 63.1221.

(1) You must prepare a Notification of Intent to Comply that includes all of the following information:

(i) General information:

(A) The name and address of the owner/operator and the source;

(B) Whether the source is a major or an area source;

(C) Waste minimization and emission control technique(s) being considered;

(D) Emission monitoring technique(s) you are considering;

(E) Waste minimization and emission control technique(s) effectiveness;

(F) A description of the evaluation criteria used or to be used to select waste minimization and/or emission control technique(s); and

(G) A general description of how you intend to comply with the emission standards of this subpart.

(ii) As applicable to each source, information on key activities and estimated dates for these activities that will bring the source into compliance with emission control requirements of this subpart. You must include all of the following key activities and dates in your NIC:

(A) The dates by which you anticipate you will develop engineering designs for emission control systems or process changes for emissions;

(B) The date by which you anticipate you will commit internal or external resources for installing emission control systems or making process changes for emission control, or the date by which you will issue orders for the purchase of component parts to accomplish emission control or process changes.

(C) The date by which you anticipate you will submit construction applications;

(D) The date by which you anticipate you will initiate on-site construction, installation of emission control equipment, or process change;

(E) The date by which you anticipate you will complete on-site construction, installation of emission control equipment, or process change; and

(F) The date by which you anticipate you will achieve final compliance. The individual dates and milestones listed in paragraphs (b)(1)(ii)(A) through (F) of this section as part of the NIC are not requirements and therefore are not enforceable deadlines; the requirements of paragraphs (b)(1)(ii)(A) through (F) of this section must be included as part of the NIC only to inform the public of how you intend to comply with the emission standards of this subpart.

(iii) A summary of the public meeting required under paragraph (c) of this section;

(iv) If you intend to cease burning hazardous waste prior to or on the compliance date, the requirements of paragraphs (b)(1)(ii) and (b)(1)(iii) of this section do not apply. You must include in your NIC a schedule of key dates for the steps to be taken to stop hazardous waste activity at your combustion unit. Key dates include the date for submittal of RCRA closure documents required under subpart G, part 264 or subpart G, part 265 of this chapter.

(2) You must make a draft of the NIC available for public review no later than 30 days prior to the public meeting required under paragraph (c)(1) of this section or no later than 9 months after the effective date of the rule if you intend to cease burning hazardous waste prior to or on the compliance date.

(3) You must submit the final NIC to the Administrator no later than one year following the effective date of the emission standards of this subpart.

(c) *NIC public meeting and notice.* (1) Prior to the submission of the NIC to the permitting agency, and no later than 10 months after the effective date of the emission standards of this subpart, you must hold at least one informal meeting with the public to discuss anticipated activities described in the draft NIC for achieving compliance with the emission standards of this subpart. You must post a sign-in sheet or otherwise provide a voluntary opportunity for attendees to provide their names and addresses;

(2) You must submit a summary of the meeting, along with the list of attendees and their addresses developed under paragraph (b)(1) of this section, and copies of any written comments or materials submitted at the meeting, to the Administrator as part of the final NIC, in accordance with paragraph (b)(1)(iii) of this section;

(3) You must provide public notice of the NIC meeting at least 30 days prior to the meeting and you must maintain, and provide to the Administrator upon request, documentation of the notice. You must provide public notice in all of the following forms:

(i) *Newspaper advertisement.* You must publish a notice in a newspaper of general circulation in the county or equivalent jurisdiction of your facility. In addition, you must publish the notice in newspapers of general circulation in adjacent counties or equivalent jurisdiction where such publication would be necessary to inform the affected public. You must publish the notice as a display advertisement.

(ii) *Visible and accessible sign.* You must post a notice on a clearly marked sign at or near the source. If you place the sign on the site of the hazardous waste combustor, the sign must be large enough to be readable from the nearest spot where the public would pass by the site.

(iii) *Broadcast media announcement.* You must broadcast a notice at least once on at least one local radio station or television station.

(iv) *Notice to the facility mailing list.* You must provide a copy of the notice to the facility mailing list in accordance with §124.10(c)(1)(ix) of this chapter.

(4) You must include all of the following in the notices required under paragraph (c)(3) of this section:

(i) The date, time, and location of the meeting;

(ii) A brief description of the purpose of the meeting;

(iii) A brief description of the source and proposed operations, including the address or a map (e.g., a sketched or copied street map) of the source location;

(iv) A statement encouraging people to contact the source at least 72 hours before the meeting if they need special access to participate in the meeting;

(v) A statement describing how the draft NIC (and final NIC, if requested) can be obtained; and

(vi) The name, address, and telephone number of a contact person for the NIC.

(5) The requirements of this paragraph do not apply to sources that intend to cease burning hazardous waste prior to or on the compliance date.

(d) *Notification of compliance.* (1) The Notification of Compliance status requirements of §63.9(h) apply, except that:

(i) The notification is a Notification of Compliance, rather than compliance status;

(ii) The notification is required for the initial comprehensive performance test and each subsequent comprehensive and confirmatory performance test; and

(iii) You must postmark the notification before the close of business on the 90th day following completion of relevant compliance demonstration activity specified in this subpart rather than the 60th day as required by §63.9(h)(2)(ii).

(2) Upon postmark of the Notification of Compliance, the operating parameter limits identified in the Notification of Compliance, as applicable, shall be complied with, the limits identified in the Documentation of Compliance or a previous Notification of Compliance are no longer applicable.

(3) The Notification of Compliance requirements of §63.1207(j) also apply.

**[63.1211]**

**What are the recordkeeping and reporting requirements?**

(a) *Summary of reporting requirements.* You must submit the following reports to the Administrator:

| Reference | Report |
|---|---|
| 63.10(d)(4) | Compliance progress reports, if required as a condition of an extension of the compliance date granted under § 63.6(i). |
| 63.10(d)(5)(i) | Periodic startup, shutdown, and malfunction reports. |
| 63.10(d)(5)(ii) | Immediate startup, shutdown, and malfunction reports. |
| 63.10(e)(3) | Excessive emissions and continuous monitoring system performance report and summary report. |
| 63.1206(c)(2)(ii)(B) | Startup, shutdown, and malfunction plan. |
| 63.1206(c)(3)(vi) | Excessive exceedances reports. |
| 63.1206(c)(4)(iv) | Emergency safety vent opening reports. |

(b) *Summary of recordkeeping requirements.* You must retain the following in the operating record:

| Reference | Document, Data, or Information |
|---|---|
| 63.1200, 63.10(b) and (c) | General. Information required to document and maintain compliance with the regulations of Subpart EEE, including data recorded by continuous monitoring systems (CMS), and copies of all |

| | |
|---|---|
| | notifications, reports, plans, and other documents submitted to the Administrator. |
| 63.1204(d)(1)(ii), 63.1220(d)(1)(ii)..... | Documentation of mode of operation changes for cement kilns with in-line raw mills. |
| 63.1204(d)(2)(ii), 63.1220(d)(2)(ii)..... | Documentation of compliance with the emission averaging requirements for cement kilns with in-line raw mills. |
| 63.1204(e)(2)(ii), 63.1220(e)(2)(ii)..... | Documentation of compliance with the emission averaging requirements for preheater or preheater/precalciner kilns with dual stacks. |
| 63.1206(b)(1)(ii)..... | If you elect to comply with all applicable requirements and standards promulgated under authority of the Clean Air Act, including Sections 112 and 129, in lieu of the requirements of Subpart EEE when not burning hazardous waste, you must document in the operating record that you are in compliance with those requirements. |
| 63.1206(b)(5)(ii)..... | Documentation that a change will not adversely affect compliance with the emission standards or operating requirements. |
| 63.1206(b)(11)..... | Calculation of hazardous waste residence time. |
| 63.1206(c)(2)..... | Startup, shutdown, and malfunction plan. |
| 63.1206(c)(2)(v)(A)..... | Documentation of your investigation and evaluation of excessive exceedances during malfunctions. |
| 63.1206(c)(3)(v)..... | Corrective measures for any automatic waste feed cutoff that results in an exceedance of an emission standard or operating parameter limit. |
| 63.1206(c)(3)(vii)..... | Documentation and results of the automatic waste feed cutoff operability testing. |
| 63.1206(c)(4)(ii)..... | Emergency safety vent operating plan. |
| 63.1206(c)(4)(iii)..... | Corrective measures for any emergency safety vent opening. |
| 63.1206(c)(5)(ii)..... | Method used for control of combustion system leaks. |
| 63.1206(c)(6)..... | Operator training and certification program. |
| 63.1206(c)(7)(i)(D)..... | Operation and maintenance plan. |
| 63.1209(c)(2)..... | Feedstream analysis plan. |
| 63.1209(k)(6)(iii), 63.1209(k)(7)(ii), | |
| 63.1209(k)(9)(ii), 63.1209(o)(4)(iii)..... | Documentation that a substitute activated carbon, dioxin/furan formation reaction inhibitor, or dry |

| | |
|---|---|
| | scrubber sorbent will provide the same level of control as the original material. |
| 63.1209(k)(7)(i)(C)..... | Results of carbon bed performance monitoring. |
| 63.1209(q)..... | Documentation of changes in modes of operation. |
| 63.1211(c)..... | Documentation of compliance. |

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c) *Documentation of compliance.* (1) By the compliance date, you must develop and include in the operating record a Documentation of Compliance. You are not subject to this requirement, however, if you submit a Notification of Compliance under §63.1207(j) prior to the compliance date. Upon inclusion of the Documentation of Compliance in the operating record, hazardous waste burning incinerators, cement kilns, and lightweight aggregate kilns regulated under the interim standards of §§63.1203, 63.1204, and 63.1205 are no longer subject to compliance with the previously applicable Notification of Compliance.

(2) The Documentation of Compliance must identify the applicable emission standards under this subpart and the limits on the operating parameters under §63.1209 that will ensure compliance with those emission standards.

(3) You must include a signed and dated certification in the Documentation of Compliance that:

(i) Required CEMs and CMS are installed, calibrated, and continuously operating in compliance with the requirements of this subpart; and

(ii) Based on an engineering evaluation prepared under your direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation, and considering at a minimum the design, operation, and maintenance characteristics of the combustor and emissions control equipment, the types, quantities, and characteristics of feedstreams, and available emissions data:

(A) You are in compliance with the emission standards of this subpart; and

(B) The limits on the operating parameters under §63.1209 ensure compliance with the emission standards of this subpart.

(4) You must comply with the emission standards and operating parameter limits specified in the Documentation of Compliance.

(d) *Data compression.* You may submit a written request to the Administrator for approval to use data compression techniques to record data from CMS, including CEMS, on a frequency less than that required by §63.1209. You must submit the request for review and approval as part of the comprehensive performance test plan.

(1) You must record a data value at least once each ten minutes.

(2) For each CEMS or operating parameter for which you request to use data compression techniques, you must recommend:

(i) A fluctuation limit that defines the maximum permissible deviation of a new data value from a previously generated value without requiring you to revert to recording each one-minute value.

(A) If you exceed a fluctuation limit, you must record each one-minute value for a period of time not less than ten minutes.

(B) If neither the fluctuation limit nor the data compression limit are exceeded during that period of time, you may reinitiate recording data values on a frequency of at least once each ten minutes; and

(ii) A data compression limit defined as the closest level to an operating parameter limit or emission standard at which reduced data recording is allowed.

(A) Within this level and the operating parameter limit or emission standard, you must record each one-minute average.

(B) The data compression limit should reflect a level at which you are unlikely to exceed the specific operating parameter limit or emission standard, considering its averaging period, with the addition of a new one-minute average.

**[63.1212]**

**What are the other requirements pertaining to the NIC?**

(a) *Certification of intent to comply.* The Notice of Intent to Comply (NIC) must contain the following certification signed and dated by a responsible official as defined under §63.2 of this chapter: I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(b) *New units.* Any source that files a RCRA permit application or permit modification request for construction of a hazardous waste combustion unit after October 12, 2005 must:

(1) Prepare a draft NIC according to §63.1210(b) and make it available to the public upon issuance of the notice of NIC public meeting per §63.1210(c)(3);

(2) Prepare a draft comprehensive performance test plan pursuant to the requirements of §63.1207 and make it available for public review upon issuance of the notice of NIC public meeting;

(3) Provide notice to the public of a pre-application meeting pursuant to §124.30 or notice to the public of a permit modification request pursuant to §270.42 and;

(4) Hold an informal public meeting 30 days following notice of NIC public meeting and notice of the pre-application meeting or notice of the permit modification request.

(c) *Information Repository specific to new combustion units.* (1) Any source that files a RCRA permit application or modification request for construction of a new hazardous waste combustion unit after October 12, 2005 may be required to establish an information repository if deemed appropriate.

(2) The Administrator may assess the need, on a case-by-case basis for an information repository. When assessing the need for a repository, the Administrator shall consider the level of public interest, the presence of an existing repository, and any information available via the New Source Review and Title V permit processes. If the Administrator determines a need for a repository, then the Administrator shall notify the facility that it must establish and maintain an information repository.

(3) The information repository shall contain all documents, reports, data, and information deemed necessary by the Administrator. The Administrator shall have the discretion to limit the contents of the repository.

(4) The information repository shall be located and maintained at a site chosen by the source. If the Administrator finds the site unsuitable for the purposes and persons for which it was established, due to problems with location, hours of availability, access, or other relevant considerations, then the Administrator shall specify a more appropriate site.

(5) The Administrator shall require the source to provide a written notice about the information repository to all individuals on the source mailing list.

(6) The source shall be responsible for maintaining and updating the repository with appropriate information throughout a period specified by the Administrator. The Administrator may close the repository at his or her discretion based on the considerations in paragraph (c)(2) of this section.

**[63.1213]**

**How can the compliance date be extended to install pollution prevention or waste minimization controls?**

(a) *Applicability.* You may request from the Administrator or State with an approved Title V program an extension of the compliance date of up to one year. An extension may be granted if you can reasonably document that the installation of pollution prevention or waste minimization measures will significantly reduce the amount and/or toxicity of hazardous wastes entering the feedstream(s) of the hazardous waste combustor(s), and that you could not install the necessary control measures and comply with the emission standards and operating requirements of this subpart by the compliance date.

(b) *Requirements for requesting an extension.* (1) You must make your requests for an (up to) one-year extension in writing in accordance with §63.6(i)(4)(B) and (C). The request must contain the following information:

(i) A description of pollution prevention or waste minimization controls that, when installed, will significantly reduce the amount and/or toxicity of hazardous wastes entering the feedstream(s) of the hazardous waste combustor(s). Pollution prevention or waste minimization measures may include: equipment or technology modifications, reformulation or redesign of products, substitution of raw materials, improvements in work practices, maintenance, training, inventory control, or recycling practices conducted as defined in §261.1(c) of this chapter;

(ii) A description of other pollution controls to be installed that are necessary to comply with the emission standards and operating requirements;

(iii) A reduction goal or estimate of the annual reductions in quantity and/or toxicity of hazardous waste(s) entering combustion feedstream(s) that you will achieve by installing the proposed pollution prevention or waste minimization measures;

(iv) A comparison of reductions in the amounts and/or toxicity of hazardous wastes combusted after installation of pollution prevention or waste minimization measures to the amounts and/or toxicity of hazardous wastes combusted prior to the installation of these measures. If the difference is less than a fifteen percent reduction, include a comparison to pollution prevention and waste minimization reductions recorded during the previous five years;

(v) Reasonable documentation that installation of the pollution prevention or waste minimization changes will not result in a net increase (except for documented increases in production) of hazardous constituents released to the environment through other emissions, wastes or effluents;

(vi) Reasonable documentation that the design and installation of waste minimization and other measures that are necessary for compliance with the emission standards and operating requirements of this subpart cannot otherwise be installed within the three year compliance period, and

(vii) The information required in §63.6(i)(6)(i)(B) through (D).

(2) You may enclose documentation prepared under an existing State-required pollution prevention program that contains the information prescribed in paragraph (b) of this section with a request for extension in lieu of complying with the time extension requirements of that paragraph.

(c) *Approval of request for extension of compliance date.* Based on the information provided in any request made under paragraph (a) of this section, the Administrator or State with an approved title V program may grant an extension of the compliance date of this subpart. The extension will be in writing in accordance with §§63.6(i)(10)(i) through 63.6(i)(10)(v)(A).

**[63.1214]**

**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 requirements in §§63.1200, 63.1203, 63.1204, 63.1205, 63.1206(a), 63.1215, 63.1216, 63.1217, 63.1218, 63.1219, 63.1220, and 63.1221.

(2) Approval of major alternatives to test methods under §§63.7(e)(2)(ii) and (f), 63.1208(b), and 63.1209(a)(1), as defined under §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §§63.8(f) and 63.1209(a)(5), as defined under §63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under §§63.10(f) and 63.1211(a) through (c), as defined under §63.90, and as required in this subpart.

[**63.1215]**

**What are the health-based compliance alternatives for total chlorine?**

(a) *General.* (1) *Overview.* You may establish and comply with health-based compliance alternatives for total chlorine under the procedures prescribed in this section for your hazardous waste combustors other than hydrochloric acid production furnaces. You may comply with these health-based compliance alternatives in lieu of the emission standards for total chlorine provided under §§63.1216, 63.1217, 63.1219, 63.1220, and 63.1221. To identify and comply with the limits, you must:

(i) Identify a total chlorine emission concentration (ppmv) expressed as chloride (Cl(-)) equivalent for each on-site hazardous waste combustor. You may select total chlorine emission concentrations as you choose to demonstrate eligibility for the risk-based limits under this section, except as provided by paragraph (b)(4) of this section;

(ii) Apportion the total chlorine emission concentration between HCl and $Cl_2$ according to paragraph (b)(6)(i) of this section, and calculate HCl and $Cl_2$ emission rates (lb/hr) using the gas flowrate and other parameters from the most recent regulatory compliance test.

(iii) Calculate the annual average HCl-equivalent emission rate as prescribed in paragraph (b)(2) of this section.

(iv) Perform an eligibility demonstration to determine if your HCl-equivalent emission rate meets the national exposure standard and thus is below the annual average HCl-equivalent emission rate limit, as prescribed by paragraph (c) of this section;

(v) Submit your eligibility demonstration for review and approval, as prescribed by paragraph (e) of this section, which must include information to ensure that the 1-hour average HCl-equivalent emission rate limit is not exceeded, as prescribed by paragraph (d) of this section;

(vi) Demonstrate compliance with the annual average HCl-equivalent emission rate limit during the comprehensive performance test, as prescribed by the testing and monitoring requirements under paragraph (e) of this section;

(vii) Comply with compliance monitoring requirements, including establishing feedrate limits on total chlorine and chloride, and operating parameter limits on emission control equipment, as prescribed by paragraph (f) of this section; and

(viii) Comply with the requirements for changes, as prescribed by paragraph (h) of this section.

(2) *Definitions.* In addition to the definitions under §63.1201, the following definitions apply to this section:

*1-Hour Average HCl-Equivalent Emission Rate* means the HCl-equivalent emission rate (lb/hr) determined by equating the toxicity of chlorine to HCl using 1-hour RELs as the health risk metric for acute exposure.

*1-Hour Average HCl-Equivalent Emission Rate Limit* means the HCl-equivalent emission rate (lb/hr) determined by equating the toxicity of chlorine to HCl using 1-hour RELs as the health risk metric for acute exposure and which ensures that maximum 1-hour average ambient concentrations of HCl-equivalents do not exceed a Hazard Index of 1.0, rounded to the nearest tenths decimal place (0.1), at an off-site receptor location.

*Acute Reference Exposure Level (aREL)* means health thresholds below which there would be no adverse health effects for greater than once in a lifetime exposures of one hour. ARELs are developed by the California Office of Health Hazard Assessment and are available at *http://www.oehha.ca.gov/air/acute_rels/acuterel.html.*

*Annual Average HCl-Equivalent Emission Rate* means the HCl-equivalent emission rate (lb/hr) determined by equating the toxicity of chlorine to HCl using RfCs as the health risk metric for long-term exposure.

*Annual Average HCl-Equivalent Emission Rate Limit* means the HCl-equivalent emission rate (lb/hr) determined by equating the toxicity of chlorine to HCl using RfCs as the health risk metric for long-term exposure and which ensures that maximum annual average ambient concentrations of HCl equivalents do not exceed a Hazard Index of 1.0, rounded to the nearest tenths decimal place (0.1), at an off-site receptor location.

*Hazard Index (HI)* means the sum of more than one Hazard Quotient for multiple substances and/or multiple exposure pathways. In this section, the Hazard Index is the sum of the Hazard Quotients for HCl and chlorine.

*Hazard Quotient (HQ)* means the ratio of the predicted media concentration of a pollutant to the media concentration at which no adverse effects are expected. For chronic inhalation exposures, the HQ is calculated under this section as the air concentration divided by the RfC. For acute inhalation exposures, the HQ is calculated under this section as the air concentration divided by the aREL.

*Look-up table analysis* means a risk screening analysis based on comparing the HCl-equivalent emission rate from the affected source to the appropriate HCl-equivalent emission rate limit specified in Tables 1 through 4 of this section.

*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.

(b) *HCl-equivalent emission rates*. (1) You must express total chlorine emission rates for each hazardous waste combustor as HCl-equivalent emission rates.

(2) *Annual average rates*. You must calculate annual average toxicity-weighted HCl-equivalent emission rates for each combustor as follows:

$$ER_{tw} = ER_{HCl} + ER_{Cl2} \times (RfC_{HCl}/RfC_{Cl2})$$

Where:

$ER_{LTtw}$ is the annual average HCl toxicity-weighted emission rate (HCl-equivalent emission rate) considering long-term exposures, lb/hr

$ER_{HCl}$ is the emission rate of HCl in lbs/hr

$ER_{Cl2}$ is the emission rate of chlorine in lbs/hr

$RfC_{HCl}$ is the reference concentration of HCl

$RfC_{Cl2}$ is the reference concentration of chlorine

(3) *1-hour average rates*. You must calculate 1-hour average toxicity-weighted HCl-equivalent emission rates for each combustor as follows:

$$ER_{STtw} = ER_{HCl} + ER_{Cl2} \times (aREL_{HCl}/aREL_{Cl2})$$

Where:

$ER_{STtw}$ is the 1-hour average HCl toxicity-weighted emission rate (HCl-equivalent emission rate) considering 1-hour (short-term) exposures, lb/hr

$ER_{HCl}$ is the emission rate of HCl in lbs/hr

$ER_{Cl2}$ is the emission rate of chlorine in lbs/hr

$aREL_{HCl}$ is the 1-hour Reference Exposure Level of HCl

$aREL_{Cl2}$ is the 1-hour Reference Exposure Level of chlorine

(4) You must use the RfC values for hydrogen chloride and chlorine found at *http://epa.gov/ttn/atw/toxsource/ summary.html*.

(5) You must use the aREL values for hydrogen chloride and chlorine found at *http://www.oehha.ca.gov/air/ acute_rels/acuterel.html*.

(6) *$Cl_2$HCl ratios*—(i) *Ratio for calculating annual average HCl-equivalent emission rates*. (A) To calculate the annual average HCl-equivalent emission rate (lb/hr) for each combustor, you must apportion the total chlorine emission concentration (ppmv chloride (Cl(-)) equivalent) between HCl and chlorine according to the historical average $Cl_2$/HCl volumetric ratio for all regulatory compliance tests.

(B) You must calculate HCl and $Cl_2$ emission rates (lb/hr) using the apportioned emission concentrations and the gas flowrate and other parameters from the most recent regulatory compliance test.

(C) You must calculate the annual average HCl-equivalent emission rate using these HCl and $Cl_2$ emission rates and the equation in paragraph (b)(2) of this section.

(ii) *Ratio for calculating 1-hour average HCl-equivalent emission rates*. (A) To calculate the 1-hour average HCl-equivalent emission rate for each combustor as a criterion for you to determine under paragraph (d) of this section if an hourly rolling average feedrate limit on total chlorine and chloride may be waived, you must apportion the total chlorine emission concentration (ppmv chloride (Cl(-)) equivalent) between HCl and chlorine according to the historical highest $Cl_2$/HCl volumetric ratio for all regulatory compliance tests.

(B) You must calculate HCl and $Cl_2$ emission rates (lb/hr) using the apportioned emission concentrations and the gas flowrate and other parameters from the most recent regulatory compliance test.

(C) You must calculate the 1-hour average HCl-equivalent emission rate using the se HCl and $Cl_2$ emission rates and the equation in paragraph (b)(3) of this section.

(iii) *Ratios for new sources*. (A) You must use engineering information to estimate the $Cl_2$/HCl volumetric ratio for a new source for the initial eligibility demonstration.

(B) You must use the $Cl_2$/HCl volumetric ratio demonstrated during the initial comprehensive performance test to demonstrate in the Notification of Compliance that your HCl-equivalent emission rate does not exceed your HCl-equivalent emission rate limit.

(C) When approving the test plan for the initial comprehensive performance test, the permitting authority will establish a periodic testing requirement, such as every 3 months for 1 year, to establish a record of representative $Cl_2$/HCl volumetric ratios.

(*1*) You must revise your HCl-equivalent emission rates and HCl-equivalent emission rate limits after each such test using the procedures prescribed in paragraphs (b)(6)(i) and (ii) of this section.

(*2*) If you no longer are eligible for the health-based compliance alternative, you must notify the permitting authority immediately and either:

(*i*) Submit a revised eligibility demonstration requesting lower HCl-equivalent emission rate limits, establishing lower HCl-equivalent emission rates, and establishing by downward extrapolation lower feedrate limits for total chlorine and chloride; or

(*ii*) Request a compliance schedule of up to three years to demonstrate compliance with the emission standards under §§63.1216, 63.1217, 63.1219, 63.1220, and 63.1221.

(iv) *Unrepresentative or inadequate historical $Cl_2$/HCl volumetric ratios*. (A) If you believe that the $Cl_2$/HCl volumetric ratio for one or more historical regulatory compliance tests is not representative of the current ratio, you may request that the permitting authority allow you to screen those ratios from the analysis of historical ratios.

(B) If the permitting authority believes that too few historical ratios are available to calculate a representative average ratio or establish a maximum ratio, the permitting authority may require you to conduct periodic testing to establish representative ratios.

(v) *Updating $Cl_2$/HCl ratios*. You must include the $Cl_2$/HCl volumetric ratio demonstrated during each performance test in your data base of historical Cl2/HCl ratios to update the ratios you establish under paragraphs (b)(6)(i) and (ii) of this section for subsequent calculations of the annual average and 1-hour average HCl-equivalent emission rates.

(7) *Emission rates are capped*. The hydrogen chloride and chlorine emission rates you use to calculate the HCl-equivalent emission rate limit for incinerators, cement kilns, and lightweight aggregate kilns must not result in total chlorine emission concentrations exceeding:

(i) For incinerators that were existing sources on April 19, 1996: 77 parts per million by volume, combined emissions, expressed as chloride (Cl(-)) equivalent, dry basis and corrected to 7 percent oxygen;

(ii) For incinerators that are new or reconstructed sources after April 19, 1996: 21 parts per million by volume, combined emissions, expressed as chloride (Cl(-)) equivalent, dry basis and corrected to 7 percent oxygen;

(iii) For cement kilns that were existing sources on April 19, 1996: 130 parts per million by volume, combined emissions, expressed as chloride (Cl(-)) equivalent, dry basis and corrected to 7 percent oxygen;

(iv) For cement kilns that are new or reconstructed sources after April 19, 1996: 86 parts per million by volume, combined emissions, expressed as chloride (Cl(-)) equivalent, dry basis and corrected to 7 percent oxygen;

(v) For lightweight aggregate kilns that were existing sources on April 19, 1996: 600 parts per million by volume, combined emissions, expressed as chloride (Cl(-)) equivalent, dry basis and corrected to 7 percent oxygen;

(vi) For lightweight aggregate kilns that are new or reconstructed sources after April 19, 1996: 600 parts per million by volume, combined emissions, expressed as chloride (Cl(-)) equivalent, dry basis and corrected to 7 percent oxygen.

(c) *Eligibility demonstration*—(1) *General.* (i) You must perform an eligibility demonstration to determine whether the total chlorine emission rates you select for each on-site hazardous waste combustor meet the national exposure standards using either a look-up table analysis prescribed by paragraph (c)(3) of this section, or a site-specific compliance demonstration prescribed by paragraph (c)(4) of this section.

(ii) You must also determine in your eligibility demonstration whether each combustor may exceed the 1-hour HCl-equivalent emission rate limit absent an hourly rolling average limit on the feedrate of total chlorine and chloride, as provided by paragraph (d) of this section.

(2) *Definition of eligibility.* (i) Eligibility for the risk-based total chlorine standard is determined by comparing the annual average HCl-equivalent emission rate for the total chlorine emission rate you select for each combustor to the annual average HCl-equivalent emission rate limit.

(ii) The annual average HCl-equivalent emission rate limit ensures that the Hazard Index for chronic exposure from HCl and chlorine emissions from all on-site hazardous waste combustors is less than or equal to 1.0, rounded to the nearest tenths decimal place (0.1), for the actual individual most exposed to the facility's emissions, considering off-site locations where people reside and where people congregate for work, school, or recreation.

(iii) Your facility is eligible for the health-based compliance alternative for total chlorine if either:

(A) The annual average HCl-equivalent emission rate for each on-site hazardous waste combustor is below the appropriate value in the look-up table determined under paragraph (c)(3) of this section; or

(B) The annual average HCl-equivalent emission rate for each on-site hazardous waste combustor is below the annual average HCl-equivalent emission rate limit you calculate based on a site-specific compliance demonstration under paragraph (c)(4) of this section.

(3) *Look-up table analysis.* Look-up tables for the eligibility demonstration are provided as Tables 1 and 2 to this section.

(i) Table 1 presents annual average HCl-equivalent emission rate limits for sources located in flat terrain. For purposes of this analysis, flat terrain is terrain that rises to a level not exceeding one half the stack height within a distance of 50 stack heights.

(ii) Table 2 presents annual average HCl-equivalent emission rate limits for sources located in simple elevated terrain. For purposes of this analysis, simple elevated terrain is terrain that rises to a level exceeding one half the stack height, but that does not exceed the stack height, within a distance of 50 stack heights.

(iii) To determine the annual average HCl-equivalent emission rate limit for a source from the look-up table, you must use the stack height and stack diameter for your hazardous waste combustors and the distance between the stack and the property boundary.

(iv) If any of these values for stack height, stack diameter, and distance to nearest property boundary do not match the exact values in the look-up table, you must use the next lowest table value.

(v) *Adjusted HCl-equivalent emission rate limit for multiple on-site combustors.* (A) If you have more than one hazardous waste combustor on site, the sum across all hazardous waste combustors of the ratio of the adjusted HCl-equivalent emission rate limit to the HCl-equivalent emission rate limit provided by Tables 1 or 2 cannot exceed 1.0, according to the following equation:

$$\sum_{i=1}^{n} \frac{\text{HCl-Equivalent Emission Rate Limit Adjusted}_i}{\text{HCl-Equivalent Emission Rate Limit Table}_i} \leq 1.0$$

Where:

i = number of on-site hazardous waste combustors;

HCl-Equivalent Emission Rate Limit Adjusted$_i$ means the apportioned, allowable HCl-equivalent emission rate limit for combustor i, and

HCl-Equivalent Emission Rate Limit Table$_i$ means the HCl-equivalent emission rate limit from Table 1 or 2 to §63.1215 for combustor *i.*

(B) The adjusted HCl-equivalent emission rate limit becomes the HCl-equivalent emission rate limit.

(4) *Site-specific compliance demonstration.* (i) You may use any scientifically-accepted peer-reviewed risk assessment methodology for your site-specific compliance demonstration to calculate an annual average HCl-equivalent emission rate limit for each on-site hazardous waste combustor. An example of one approach for performing the 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 Web site at *http://www.epa.gov/ttn/fera/risk_atra_main.html.*

(ii) The annual average HCl-equivalent emission rate limit is the HCl-equivalent emission rate that ensures that the Hazard Index associated with maximum annual average exposures is not greater than 1.0 rounded to the nearest tenths decimal place (0.1).

(iii) To determine the annual average HCl-equivalent emission rate limit, your site-specific compliance demonstration must, at a minimum:

(A) Estimate long-term inhalation exposures through the estimation of annual or multi-year average ambient concentrations;

(B) Estimate the inhalation exposure for the actual individual most exposed to the facility's emissions from hazardous waste combustors, considering off-site locations where people reside and where people congregate for work, school, or recreation;

(C) Use site-specific, quality-assured data wherever possible;

(D) Use health-protective default assumptions wherever site-specific data are not available, and:

(E) 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.

(iv) Your site-specific compliance demonstration need not:

(A) Assume any attenuation of exposure concentrations due to the penetration of outdoor pollutants into indoor exposure areas;

(B) Assume any reaction or deposition of the emitted pollutants during transport from the emission point to the point of exposure.

(d) *Assurance that the 1-hour HCl-equivalent emission rate limit will not be exceeded.* To ensure that the 1-hour HCl-equivalent emission rate limit will not be exceeded when complying with the annual average

HCl-equivalent emission rate limit, you must establish a 1-hour average HCl-equivalent emission rate for each combustor, establish a 1-hour average HCl-equivalent emission rate limit for each combustor, and consider site-specific factors including prescribed criteria to determine if the 1-hour average HCl-equivalent emission rate limit may be exceeded absent an hourly rolling average limit on the feedrate of total chlorine and chloride. If the 1-hour average HCl-equivalent emission rate limit may be exceeded, you must establish an hourly rolling average feedrate limit on total chlorine as provided by paragraph (f)(3) of this section.

(1) *1-hour average HCl-equivalent emission rate.* You must calculate the 1-hour average HCl-equivalent emission rate from the total chlorine emission concentration you select for each source as prescribed in paragraph (b)(6)(ii)(C) of this section.

(2) *1-hour average HCl-equivalent emission rate limit.* You must establish the 1-hour average HCl-equivalent emission rate limit for each affected source using either a look-up table analysis or site-specific analysis:

(i) *Look-up table analysis.* Look-up tables are provided for 1-hour average HCl-equivalent emission rate limits as Table 3 and Table 4 to this section. Table 3 provides limits for facilities located in flat terrain. Table 4 provides limits for facilities located in simple elevated terrain. You must use the Tables to establish 1-hour average HCl-equivalent emission rate limits as prescribed in paragraphs (c)(3)(iii) through (c)(3)(v) of this section for annual average HCl-equivalent emission rate limits.

(ii) *Site-specific analysis.* The 1-hour average HCl-equivalent emission rate limit is the HCl-equivalent emission rate that ensures that the Hazard Index associated with maximum 1-hour average exposures is not greater than 1.0 rounded to the nearest tenths decimal place (0.1). You must follow the risk assessment procedures under paragraph (c)(4) of this section to estimate short-term inhalation exposures through the estimation of maximum 1-hour average ambient concentrations.

(3) *Criteria for determining whether the 1-hour HCl-equivalent emission rate may be exceeded absent an hourly rolling average limit on the feedrate of total chlorine and chloride.* An hourly rolling average feedrate limit on total chlorine and chloride is waived if you determine considering the criteria listed below that the long-term feedrate limit (and averaging period) established under paragraph (c)(4)(i) of this section will also ensure that the 1-hour average HCl-equivalent emission rate will not exceed the 1-hour average HCl-equivalent emission rate limit you calculate for each combustor.

(i) The ratio of the 1-hour average HCl-equivalent emission rate based on the total chlorine emission rate you select for each hazardous waste combustor to the 1-hour average HCl-equivalent emission rate limit for the combustor; and

(ii) The potential for the source to vary total chlorine and chloride feedrates substantially over the averaging period for the feedrate limit established under paragraph (c)(4)(i) of this section.

(e) *Review and approval of eligibility demonstrations*—(1) *Content of the eligibility demonstration*—(i) *General.* The eligibility demonstration must include the following information, at a minimum:

(A) Identification of each hazardous waste combustor combustion gas emission point (e.g., generally, the flue gas stack);

(B) The maximum and average capacity at which each combustor will operate, and the maximum rated capacity for each combustor, using the metric of stack gas volume (under both actual and standard conditions) emitted per unit of time, as well as any other metric that is appropriate for the combustor (e.g., million Btu/hr heat input for boilers; tons of dry raw material feed/hour for cement kilns);

(C) Stack parameters for each combustor, including, but not limited to stack height, stack diameter, stack gas temperature, and stack gas exit velocity;

(D) Plot plan showing all stack emission points, nearby residences and property boundary line;

(E) Identification of any stack gas control devices used to reduce emissions from each combustor;

(F) Identification of the RfC values used to calculate annual average HCl-equivalent emission rates and the aREL values used to calculate 1-hour average HCl-equivalent emission rates;

(G) Calculations used to determine the annual average and 1-hour average HCl-equivalent emission rates and rate limits, including calculation of the $Cl_2$/HCl ratios as prescribed by paragraph (b)(6) of this section;

(ii) *Additional content to implement the annual average HCl-equivalent emission rate limit.* You must include the following in your eligibility demonstration to implement the annual average HCl-equivalent emission rate limit:

(A) For incinerators, cement kilns, and lightweight aggregate kilns, calculations to confirm that the annual average HCl-equivalent emission rate that you calculate from the total chlorine emission rate you select for each combustor does not exceed the limits provided by paragraph (b)(7) of this section;

(B) Comparison of the annual average HCl-equivalent emission rate limit for each combustor to the annual average HCl-equivalent emission rate for the total chlorine emission rate you select for each combustor;

(C) The annual average HCl-equivalent emission rate limit for each hazardous waste combustor, and the limits on operating parameters required under paragraph (g)(1) of this section;

(D) Determination of the long-term chlorine feedrate limit, including the total chlorine system removal efficiency for sources that establish an (up to) annual rolling average feedrate limit under paragraph (g)(2)(ii) of this section;

(iii) *Additional content to implement the 1-hour average HCl-equivalent emission rate limit.* You must include the following in your eligibility demonstration to implement the 1-hour average HCl-equivalent emission rate limit:

(A) Determination of whether the combustor may exceed the 1-hour HCl-equivalent emission rate limit absent an hourly rolling average chlorine feedrate limit, including:

(*1*) Determination of the 1-hour average HCl-equivalent emission rate from the total chlorine emission rate you select for the combustor;

(*2*) Determination of the 1-hour average HCl-equivalent emission rate limit using either look-up Tables 3 and 4 to this section or site-specific risk analysis;

(*3*) Determination of the ratio of the 1-hour average HCl-equivalent emission rate to the 1-hour average HCl-equivalent emission rate limit for the combustor; and

(*4*) The potential for the source to vary total chlorine and chloride feedrates substantially over the averaging period for the long-term feedrate limit established under paragraphs (g)(2)(i) and (g)(2)(ii) of this section; and

(B) Determination of the hourly rolling average chlorine feedrate limit, including the total chlorine system removal efficiency.

(iv) *Additional content of a look-up table demonstration.* If you use the look-up table analysis to establish HCl-equivalent emission rate limits, your eligibility demonstration must also contain, at a minimum, the following:

(A) Documentation that the facility is located in either flat or simple elevated terrain; and

(B) For facilities with more than one on-site hazardous waste combustor, documentation that the sum of the ratios for all such combustors of the HCl-equivalent emission rate to the HCl-equivalent emission rate limit does not exceed 1.0.

(v) *Additional content of a site-specific compliance demonstration.* If you use a site-specific compliance demonstration, your eligibility demonstration must also contain, at a minimum, the following information to support your determination of the annual average HCl-equivalent emission rate limit for each combustor:

(A) Identification of the risk assessment methodology used;

(B) Documentation of the fate and transport model used;

(C) Documentation of the fate and transport model inputs, including the stack parameters listed in paragraph (d)(1)(i)(C) of this section converted to the dimensions required for the model;

(D) As applicable:

(*1*) Meteorological data;

(*2*) Building, land use, and terrain data;

(*3*) Receptor locations and population data, including areas where people congregate for work, school, or recreation; and

(*4*) Other facility-specific parameters input into the model;

(E) Documentation of the fate and transport model outputs; and

(F) Documentation of any exposure assessment and risk characterization calculations.

(2) *Review and approval*—(i) *Existing sources.* (A) If you operate an existing source, you must submit the eligibility demonstration to your permitting authority for review and approval not later than 12 months prior to the compliance date. You must also submit a separate copy of the eligibility demonstration to: U.S. EPA, Risk and Exposure Assessment Group, Emission Standards Division (C404–01), Attn: Group Leader, Research Triangle Park, North Carolina 27711, electronic mail address *REAG@epa.gov.*

(B) Your permitting authority should notify you of approval or intent to disapprove your eligibility demonstration within 6 months after receipt of the original demonstration, and within 3 months after receipt of any supplemental information that you submit. A notice of intent to disapprove your eligibility demonstration, whether before or after the compliance date, will identify incomplete or inaccurate information or noncompliance with prescribed procedures and specify how much time you will have to submit additional information or to achieve the MACT standards for total chlorine under §§63.1216, 63.1217, 63.1219, 63.1220, and 63.1221. If your eligibility demonstration is disapproved, the permitting authority may extend the compliance date of the total chlorine standards to allow you to make changes to the design or operation of the combustor or related systems as quickly as practicable to enable you to achieve compliance with the MACT total chlorine standards.

(C) If your permitting authority has not approved your eligibility demonstration by the compliance date, and has not issued a notice of intent to disapprove your demonstration, you may nonetheless begin complying, on the compliance date, with the HCl-equivalent emission rate limits you present in your eligibility demonstration.

(D) If your permitting authority issues a notice of intent to disapprove your eligibility demonstration after the compliance date, the authority will identify the basis for that notice and specify how much time you will have to submit additional information or to comply with the MACT standards for total chlorine under §§63.1216, 63.1217, 63.1219, 63.1220, and 63.1221. The permitting authority may extend the compliance date of the total chlorine standards to allow you to make changes to the design or operation of the combustor or related systems as quickly as practicable to enable you to achieve compliance with the MACT standards for total chlorine.

(ii) *New or reconstructed sources.* (A) *General.* The procedures for review and approval of eligibility demonstrations applicable to existing sources under paragraph (e)(2)(i) of this section also apply to new or reconstructed sources, except that the date you must submit the eligibility demonstration is as prescribed in this paragraph (e)(2)(ii).

(B) If you operate a new or reconstructed source that starts up before April 12, 2007, or a solid fuel boiler or liquid fuel boiler that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP before April 12, 2007, you must either:

(*1*) Comply with the final total chlorine emission standards under §§63.1216, 63.1217, 63.1219, 63.1220, and 63.1221, by October 12, 2005, or upon startup, whichever is later, except for a standard that is more stringent than the standard proposed on April 20, 2004 for your source. If a final standard is more stringent than the proposed standard, you may comply with the proposed standard until October 14, 2008, after which you must comply with the final standard; or

(*2*) Submit an eligibility demonstration for review and approval under this section by April 12, 2006, and comply with the HCl-equivalent emission rate limits and operating requirements you establish in the eligibility demonstration.

(C) If you operate a new or reconstructed source that starts up on or after April 12, 2007, or a solid fuel boiler or liquid fuel boiler that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP on or after April 12, 2007, you must either:

(*1*) Comply with the final total chlorine emission standards under §§63.1216, 63.1217, 63.1219, 63.1220, and 63.1221 upon startup. If the final standard is more stringent than the standard proposed for your source on April 20, 2004, however, and if you start operations before October 14, 2008, you may comply with the proposed standard until October 14, 2008, after which you must comply with the final standard; or

(*2*) Submit an eligibility demonstration for review and approval under this section 12 months prior to startup.

(f) *Testing requirements*—(1) *General.* You must comply with the requirements for comprehensive performance testing under §63.1207.

(2) *System removal efficiency.* (i) You must calculate the total chlorine removal efficiency of the combustor during each run of the comprehensive performance test.

(ii) You must calculate the average system removal efficiency as the average of the test run averages.

(iii) If your source does not control emissions of total chlorine, you must assume zero system removal efficiency.

(3) *Annual average HCl-equivalent emission rate limit.* If emissions during the comprehensive performance test exceed the annual average HCl-equivalent emission rate limit, eligibility for emission limits under this section is not affected. This emission rate limit is an annual average limit even though compliance is based on a 12-hour or (up to) an annual rolling average feedrate limit on total chlorine and chloride because the feedrate limit is also used for compliance assurance for the semivolatile metal emission standard

(4) *1-hour average HCl-equivalent emission rate limit.* Total chlorine emissions during each run of the comprehensive performance test cannot exceed the 1-hour average HCl-equivalent emission rate limit.

(5) *Test methods.* (i) If you operate a cement kiln or a combustor equipped with a dry acid gas scrubber, you must use EPA Method 320/321 or ASTM D 6735–01, or an equivalent method, to measure hydrogen chloride, and the back-half (caustic impingers) of Method 26/26A, or an equivalent method, to measure chlorine gas.

(ii) *Bromine and sulfur considerations.* If you operate an incinerator, boiler, or lightweight aggregate kiln and your feedstreams contain bromine or sulfur during the comprehensive performance test at levels specified under paragraph (e)(2)(ii)(B) of this section, you must use EPA Method 320/321 or ASTM D 6735–01, or an equivalent method, to measure hydrogen chloride, and Method 26/26A, or an equivalent method, to measure chlorine and hydrogen chloride, and determine your chlorine emissions as follows:

(A) You must determine you chlorine emissions to be the higher of the value measured by Method 26/26A, or an equivalent method, or the value calculated by difference between the combined hydrogen chloride and chlorine levels measured by Method 26/26a, or an equivalent method, and the hydrogen chloride measurement from EPA Method 320/321 or ASTM D 6735–01, or an equivalent method.

(B) The procedures under paragraph (f)(2)(ii) of this section for determining hydrogen chloride and chlorine emissions apply if you feed bromine or sulfur during the performance test at the levels specified in this paragraph (f)(5)(ii)(B):

(*1*) If the bromine/chlorine ratio in feedstreams is greater than 5 percent by mass; or

(*2*) If the sulfur/chlorine ratio in feedstreams is greater than 50 percent by mass.

(g) *Monitoring requirements.* (1) *General.* You must establish and comply with limits on the same operating parameters that apply to sources complying with the MACT standard for total chlorine under §63.1209(o), except that feedrate limits on total chlorine and chloride must be established according to paragraphs (g)(2) and (g)(3) of this section:

(2) *Feedrate limit to ensure compliance with the annual average HCl-equivalent emission rate limit.* (i) For sources subject to the feedrate limit for total chlorine and chloride under §63.1209(n)(4) to ensure compliance with the semivolatile metals standard:

(A) The feedrate limit (and averaging period) for total chlorine and chloride to ensure compliance with the annual average HCl-equivalent emission rate limit is the same as required by §63.1209(n)(4), except as provided by paragraph (g)(2)(i)(B) of this section.

(B) The numerical value of the total chlorine and chloride feedrate limit (*i.e.*, not considering the averaging period) you establish under §63.1209(n)(4) must not exceed the value you calculate as the annual average HCl-equivalent emission rate limit (lb/hr) divided by [1 !- system removal efficiency], where the system removal efficiency is calculated as prescribed by paragraph (f)(2) of this section.

(ii) For sources exempt from the feedrate limit for total chlorine and chloride under §63.1209(n)(4) because they comply with §63.1207(m)(2), the feedrate limit for total chlorine and chloride to ensure compliance with the annual average HCl-equivalent emission rate must be established as follows:

(A) You must establish an average period for the feedrate limit that does not exceed an annual rolling average;

(B) The numerical value of the total chlorine and chloride feedrate limit (*i.e.*, not considering the averaging period) must not exceed the value you calculate as the annual average HCl-equivalent emission rate limit (lb/hr) divided by [1 !- system removal efficiency], where the system removal efficiency is calculated as prescribed by paragraph (f)(2) of this section.

(C) You must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by paragraph (b)(5)(i) of this section. You must calculate rolling averages thereafter as the average of the available one-minute values until enough one-minute values are available to calculate the rolling average period you select. At that time and thereafter, you update the rolling average feedrate each hour with a 60-minute average feedrate.

(3) *Feedrate limit to ensure compliance with the 1-hour average HCl-equivalent emission rate limit.* (i) You must establish an hourly rolling average feedrate limit on total chlorine and chloride to ensure compliance with the 1-hour average HCl-equivalent emission rate limit unless you determine that the hourly rolling average feedrate limit is waived under paragraph (d) of this section.

(ii) You must calculate the hourly rolling average feedrate limit for total chlorine and chloride as the 1-hour average HCl-equivalent emission rate limit (lb/hr) divided by [1 !- system removal efficiency], where the system removal efficiency is calculated as prescribed by paragraph (f)(2)(ii) of this section.

(h) *Changes*—(1) *Changes over which you have control.* (i) *Changes that would affect the HCl-equivalent emission rate limit.* (A) If you plan to change the design, operation, or maintenance of the facility in a manner than would decrease the annual average or 1-hour average HCl-equivalent emission rate limit, you must submit to the permitting authority prior to the change a revised eligibility demonstration documenting the lower emission rate limits and calculations of reduced total chlorine and chloride feedrate limits.

(B) If you plan to change the design, operation, or maintenance of the facility in a manner than would increase the annual average or 1-hour average HCl-equivalent emission rate limit, and you elect to increase your total chlorine and chloride feedrate limits. You must also submit to the permitting authority prior to the change a revised eligibility demonstration documenting the increased emission rate limits and calculations of the increased feedrate limits prior to the change.

(ii) *Changes that could affect system removal efficiency.* (A) If you plan to change the design, operation, or maintenance of the combustor in a manner than could decrease the system removal efficiency, you are subject to the requirements of §63.1206(b)(5) for conducting a performance test to reestablish the combustor's system removal efficiency and you must submit a revised eligibility demonstration documenting the lower system removal efficiency and the reduced feedrate limits on total chlorine and chloride.

(B) If you plan to change the design, operation, or maintenance of the combustor in a manner than could increase the system removal efficiency, and you elect to document the increased system removal efficiency to establish higher feedrate limits on total chlorine and chloride, you are subject to the requirements of §63.1206(b)(5) for conducting a performance test to reestablish the combustor's system removal efficiency. You must also submit to the permitting authority a revised eligibility demonstration

documenting the higher system removal efficiency and the increased feedrate limits on total chlorine and chloride.

(2) *Changes over which you do not have control that may decrease the HCl-equivalent emission rate limits.* These requirements apply if you use a site-specific risk assessment under paragraph (c)(4) of this section to demonstrate eligibility for the health-based limits.

(i) *Proactive review.* You must review the documentation you use in your eligibility demonstration every five years from the date of the comprehensive performance test and submit for review and approval with the comprehensive performance test plan either a certification that the information used in your eligibility demonstration has not changed in a manner that would decrease the annual average or 1-hour average HCl-equivalent emission rate limit, or a revised eligibility demonstration.

(ii) *Reactive review.* If in the interim between your comprehensive performance tests you have reason to know of changes that would decrease the annual average or 1-hour average HCl-equivalent emission rate limit, you must submit a revised eligibility demonstration as soon as practicable but not more frequently than annually.

(iii) *Compliance schedule.* If you determine that you cannot demonstrate compliance with a lower annual average HCl-equivalent emission rate limit during the comprehensive performance test because you need additional time to complete changes to the design or operation of the source, you may request that the permitting authority grant you additional time to make those changes as quickly as practicable.

## Table 1 of §63.1215: Annual Average HCl-Equivalent Emssion Rate Limits (lb/hr)--Flat Terrain

| | Distance to property boundary (m) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Stack Diameter = 0.3 m*** | | | | | | | | | | | | |
| **Stack Height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **5** | 3.7E-01 | 4.9E-01 | 7.3E-01 | 9.1E-01 | 1.6E+00 | 2.3E+00 | 4.1E+00 | 5.7E+00 | 6.1E+00 | 1.0E+01 | 1.6E+01 | 2.9E+01 |
| **10** | 1.0E+00 | 1.0E+00 | 1.1E+00 | 1.5E+00 | 2.1E+00 | 2.7E+00 | 4.8E+00 | 5.7E+00 | 6.5E+00 | 1.1E+01 | 1.8E+01 | 3.2E+01 |
| **20** | 2.3E+00 | 2.3E+00 | 2.3E+00 | 2.3E+00 | 2.7E+00 | 3.7E+00 | 5.6E+00 | 7.4E+00 | 1.0E+01 | 1.9E+01 | 2.9E+01 | 5.2E+01 |
| **30** | 4.1E+00 | 4.1E+00 | 4.1E+00 | 4.2E+00 | 4.7E+00 | 6.0E+00 | 9.5E+00 | 1.3E+01 | 1.8E+01 | 3.3E+01 | 4.8E+01 | 7.9E+01 |
| **50** | 1.2E+01 | 1.2E+01 | 1.2E+01 | 1.2E+01 | 1.3E+01 | 1.5E+01 | 2.0E+01 | 2.8E+01 | 3.8E+01 | 7.1E+01 | 1.0E+02 | 1.6E+02 |
| ***Stack Diameter = 0.5 m*** | | | | | | | | | | | | |
| **Stack Height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **5** | 6.5E-01 | 9.3E-01 | 1.4E+00 | 1.8E+00 | 3.0E+00 | 4.4E+00 | 7.2E+00 | 9.2E+00 | 1.3E+01 | 1.5E+01 | 2.0E+01 | 3.4E+01 |
| **10** | 1.4E+00 | 1.4E+00 | 1.6E+00 | 2.1E+00 | 3.9E+00 | 5.4E+00 | 8.3E+00 | 1.0E+01 | 1.3E+01 | 1.7E+01 | 2.3E+01 | 3.8E+01 |
| **20** | 3.7E+00 | 3.7E+00 | 3.7E+00 | 3.9E+00 | 4.9E+00 | 6.5E+00 | 8.5E+00 | 1.0E+01 | 1.3E+01 | 2.2E+01 | 3.2E+01 | 5.5E+01 |
| **30** | 5.5E+00 | 5.5E+00 | 5.5E+00 | 5.5E+00 | 5.6E+00 | 6.7E+00 | 1.0E+01 | 1.4E+01 | 1.9E+01 | 3.4E+01 | 4.9E+01 | 8.1E+01 |
| **50** | 1.4E+01 | 1.4E+01 | 1.4E+01 | 1.4E+01 | 1.4E+01 | 1.5E+01 | 2.1E+01 | 2.8E+01 | 3.9E+01 | 7.2E+01 | 1.0E+02 | 1.6E+02 |
| ***Stack Diameter = 1.0 m*** | | | | | | | | | | | | |
| **Stack Height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **10** | 3.2E+00 | 3.6E+00 | 4.0E+00 | 5.4E+00 | 9.6E+00 | 1.3E+01 | 1.8E+01 | 2.3E+01 | 2.8E+01 | 4.5E+01 | 5.3E+01 | 6.5E+01 |
| **20** | 5.9E+00 | 5.9E+00 | 5.9E+00 | 6.1E+00 | 9.6E+00 | 1.3E+01 | 1.8E+01 | 2.3E+01 | 2.8E+01 | 4.5E+01 | 5.3E+01 | 7.5E+01 |
| **30** | 1.0E+01 | 1.0E+01 | 1.0E+01 | 1.0E+01 | 1.2E+01 | 1.3E+01 | 1.8E+01 | 2.3E+01 | 2.8E+01 | 4.5E+01 | 6.1E+01 | 9.3E+01 |
| **50** | 1.8E+01 | 1.8E+01 | 1.8E+01 | 1.8E+01 | 1.8E+01 | 1.8E+01 | 2.3E+01 | 3.1E+01 | 4.2E+01 | 7.7E+01 | 1.1E+02 | 1.7E+02 |
| **70** | 7.4E+01 | 7.4E+01 | 7.4E+01 | 7.4E+01 | 7.4E+01 | 7.4E+01 | 8.0E+01 | 1.0E+02 | 1.4E+02 | 2.1E+02 | 2.7E+02 | 4.0E+02 |
| ***Stack Diameter = 1.5 m*** | | | | | | | | | | | | |
| **Stack Height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **10** | 4.1E+00 | 5.3E+00 | 6.4E+00 | 7.9E+00 | 1.3E+01 | 2.1E+01 | 2.7E+01 | 3.6E+01 | 4.8E+01 | 7.6E+01 | 9.1E+01 | 1.1E+02 |
| **20** | 7.6E+00 | 7.6E+00 | 7.6E+00 | 7.9E+00 | 1.3E+01 | 2.1E+01 | 2.7E+01 | 3.6E+01 | 4.8E+01 | 7.6E+01 | 9.1E+01 | 1.2E+02 |
| **30** | 1.3E+01 | 1.3E+01 | 1.3E+01 | 1.3E+01 | 1.6E+01 | 2.1E+01 | 2.7E+01 | 3.6E+01 | 4.8E+01 | 7.6E+01 | 9.1E+01 | 1.2E+02 |
| **50** | 2.3E+01 | 2.3E+01 | 2.3E+01 | 2.3E+01 | 2.3E+01 | 2.3E+01 | 2.7E+01 | 3.6E+01 | 4.8E+01 | 8.6E+01 | 1.2E+02 | 1.8E+02 |
| **70** | 1.0E+02 | 1.0E+02 | 1.0E+02 | 1.0E+02 | 1.0E+02 | 1.0E+02 | 1.1E+02 | 1.4E+02 | 1.8E+02 | 3.0E+02 | 4.0E+02 | 5.8E+02 |
| ***Stack Diameter = 2.0 m*** | | | | | | | | | | | | |
| **Stack Height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **10** | 5.0E+00 | 6.3E+00 | 7.7E+00 | 9.8E+00 | 1.7E+01 | 2.8E+01 | 3.3E+01 | 4.4E+01 | 5.9E+01 | 1.0E+02 | 1.4E+02 | 1.6E+02 |
| **20** | 9.3E+00 | 9.3E+00 | 9.4E+00 | 1.0E+01 | 1.7E+01 | 2.8E+01 | 3.3E+01 | 4.4E+01 | 5.9E+01 | 1.0E+02 | 1.4E+02 | 1.8E+02 |
| **30** | 1.6E+01 | 1.6E+01 | 1.6E+01 | 1.6E+01 | 1.9E+01 | 2.8E+01 | 3.3E+01 | 4.4E+01 | 5.9E+01 | 1.0E+02 | 1.4E+02 | 1.8E+02 |
| **50** | 2.9E+01 | 2.9E+01 | 2.9E+01 | 2.9E+01 | 2.9E+01 | 2.9E+01 | 3.3E+01 | 4.4E+01 | 5.9E+01 | 1.0E+02 | 1.4E+02 | 2.0E+02 |
| **70** | 1.4E+02 | 1.4E+02 | 1.4E+02 | 1.4E+02 | 1.4E+02 | 1.4E+02 | 1.4E+02 | 1.8E+02 | 2.3E+02 | 3.4E+02 | 4.3E+02 | 6.4E+02 |
| **100** | 3.0E+02 | 3.0E+02 | 3.0E+02 | 3.0E+02 | 3.0E+02 | 3.0E+02 | 3.0E+02 | 3.0E+02 | 3.5E+02 | 5.2E+02 | 6.8E+02 | 8.2E+02 |
| ***Stack Diameter = 3.0 m*** | | | | | | | | | | | | |
| **Stack Height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **10** | 6.5E+00 | 6.9E+00 | 7.7E+00 | 9.8E+00 | 2.2E+01 | 3.4E+01 | 5.4E+01 | 7.4E+01 | 9.8E+01 | 1.3E+02 | 1.6E+02 | 1.6E+02 |
| **20** | 1.6E+01 | 1.6E+01 | 1.7E+01 | 2.0E+01 | 2.5E+01 | 3.7E+01 | 5.6E+01 | 7.4E+01 | 9.8E+01 | 1.5E+02 | 2.1E+02 | 3.0E+02 |
| **30** | 2.0E+01 | 2.0E+01 | 2.0E+01 | 2.0E+01 | 2.5E+01 | 3.7E+01 | 5.6E+01 | 7.4E+01 | 9.8E+01 | 1.7E+02 | 2.2E+02 | 3.0E+02 |
| **50** | 4.2E+01 | 4.2E+01 | 4.2E+01 | 4.2E+01 | 4.4E+01 | 5.1E+01 | 5.6E+01 | 7.4E+01 | 9.8E+01 | 1.7E+02 | 2.2E+02 | 3.0E+02 |
| **70** | 2.3E+02 | 2.3E+02 | 2.3E+02 | 2.3E+02 | 2.3E+02 | 2.4E+02 | 2.4E+02 | 2.9E+02 | 3.6E+02 | 4.1E+02 | 5.0E+02 | 7.0E+02 |
| **100** | 3.5E+02 | 3.5E+02 | 3.5E+02 | 3.5E+02 | 3.5E+02 | 3.5E+02 | 3.5E+02 | 3.5E+02 | 3.9E+02 | 6.3E+02 | 7.5E+02 | 8.7E+02 |
| ***Stack Diameter = 4.0 m*** | | | | | | | | | | | | |
| **Stack Height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **30** | 2.5E+01 | 2.5E+01 | 2.5E+01 | 2.5E+01 | 3.4E+01 | 5.6E+01 | 8.1E+01 | 1.1E+02 | 1.4E+02 | 2.2E+02 | 2.8E+02 | 4.3E+02 |
| **50** | 5.1E+01 | 5.1E+01 | 5.1E+01 | 5.1E+01 | 5.3E+01 | 6.2E+01 | 8.1E+01 | 1.1E+02 | 1.4E+02 | 2.4E+02 | 3.1E+02 | 4.4E+02 |
| **70** | 2.6E+02 | 2.6E+02 | 2.6E+02 | 2.6E+02 | 2.7E+02 | 2.8E+02 | 3.3E+02 | 4.6E+02 | 4.8E+02 | 5.0E+02 | 5.7E+02 | 7.7E+02 |
| **100** | 5.7E+02 | 5.7E+02 | 5.7E+02 | 5.7E+02 | 5.7E+02 | 5.7E+02 | 5.7E+02 | 5.7E+02 | 5.8E+02 | 8.6E+02 | 9.3E+02 | 1.1E+03 |

## Table 2 of §63.1215: Annual Average HCl-Equivalent Emission Rate Limits (lbs/hr)--Simple Elevated Terrain

| | Distance to property boundary (m) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Stack Diameter = 0.3 m*** | | | | | | | | | | | | |
| **Stack height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **5** | 1.3E-01 | 1.8E-01 | 2.5E-01 | 3.7E-01 | 6.4E-01 | 8.9E-01 | 1.4E+00 | 2.0E+00 | 3.1E+00 | 7.7E+00 | 1.3E+01 | 2.6E+01 |
| **10** | 3.8E-01 | 3.8E-01 | 4.4E-01 | 6.1E-01 | 6.4E-01 | 8.9E-01 | 1.4E+00 | 2.0E+00 | 3.1E+00 | 7.7E+00 | 1.3E+01 | 2.6E+01 |
| **20** | 1.1E+00 | 1.1E+00 | 1.1E+00 | 1.2E+00 | 1.2E+00 | 1.5E+00 | 2.3E+00 | 3.4E+00 | 5.2E+00 | 1.2E+01 | 2.0E+01 | 3.9E+01 |
| **30** | 2.4E+00 | 2.4E+00 | 2.4E+00 | 2.4E+00 | 2.7E+00 | 3.5E+00 | 4.2E+00 | 5.2E+00 | 7.0E+00 | 1.5E+01 | 2.6E+01 | 4.9E+01 |
| **50** | 7.7E+00 | 7.7E+00 | 7.7E+00 | 7.7E+00 | 7.7E+00 | 8.6E+00 | 8.6E+00 | 8.6E+00 | 8.6E+00 | 2.0E+01 | 3.4E+01 | 6.5E+01 |
| ***Stack Diameter = 0.5 m*** | | | | | | | | | | | | |
| **Stack height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **5** | 1.8E-01 | 2.6E-01 | 3.5E-01 | 5.6E-01 | 1.4E+00 | 1.6E+00 | 2.3E+00 | 3.4E+00 | 5.2E+00 | 9.6E+00 | 1.5E+01 | 2.8E+01 |
| **10** | 5.3E-01 | 5.3E-01 | 6.1E-01 | 8.5E-01 | 1.4E+00 | 1.6E+00 | 2.3E+00 | 3.4E+00 | 5.2E+00 | 9.6E+00 | 1.5E+01 | 2.8E+01 |
| **20** | 1.5E+00 | 1.5E+00 | 1.5E+00 | 1.5E+00 | 1.5E+00 | 1.6E+00 | 2.3E+00 | 3.4E+00 | 5.2E+00 | 1.2E+01 | 2.0E+01 | 3.9E+01 |
| **30** | 2.9E+00 | 2.9E+00 | 2.9E+00 | 2.9E+00 | 2.9E+00 | 3.5E+00 | 4.2E+00 | 5.5E+00 | 8.1E+00 | 1.7E+01 | 2.8E+01 | 5.2E+01 |
| **50** | 8.0E+00 | 8.0E+00 | 8.0E+00 | 8.0E+00 | 8.0E+00 | 8.8E+00 | 1.2E+01 | 1.2E+01 | 1.2E+01 | 2.3E+01 | 3.7E+01 | 6.9E+01 |
| ***Stack Diameter = 1.0 m*** | | | | | | | | | | | | |
| **Stack height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **10** | 9.7E-01 | 9.7E-01 | 1.1E+00 | 1.7E+00 | 3.7E+00 | 3.7E+00 | 4.2E+00 | 5.5E+00 | 7.5E+00 | 1.5E+01 | 2.3E+01 | 4.1E+01 |
| **20** | 2.7E+00 | 2.7E+00 | 2.7E+00 | 3.0E+00 | 3.7E+00 | 3.7E+00 | 4.2E+00 | 5.5E+00 | 7.5E+00 | 1.5E+01 | 2.3E+01 | 4.3E+01 |
| **30** | 4.3E+00 | 4.3E+00 | 4.3E+00 | 4.3E+00 | 4.3E+00 | 4.3E+00 | 4.3E+00 | 5.5E+00 | 8.1E+00 | 1.7E+01 | 2.8E+01 | 5.2E+01 |
| **50** | 9.5E+00 | 9.5E+00 | 9.5E+00 | 9.5E+00 | 9.5E+00 | 9.5E+00 | 1.2E+01 | 1.4E+01 | 1.6E+01 | 3.1E+01 | 4.8E+01 | 8.3E+01 |
| **70** | 4.0E+01 | 4.0E+01 | 4.0E+01 | 4.0E+01 | 4.0E+01 | 4.0E+01 | 4.0E+01 | 4.1E+01 | 4.1E+01 | 4.1E+01 | 5.8E+01 | 9.8E+01 |
| ***Stack Diameter = 1.5 m*** | | | | | | | | | | | | |
| **Stack height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **10** | 2.0E+00 | 2.0E+00 | 2.3E+00 | 3.4E+00 | 5.1E+00 | 6.0E+00 | 6.0E+00 | 6.6E+00 | 9.3E+00 | 1.9E+01 | 3.0E+01 | 5.4E+01 |
| **20** | 3.5E+00 | 3.5E+00 | 3.5E+00 | 3.9E+00 | 5.1E+00 | 6.0E+00 | 6.0E+00 | 6.6E+00 | 9.3E+00 | 1.9E+01 | 3.0E+01 | 5.4E+01 |
| **30** | 6.0E+00 | 6.0E+00 | 6.0E+00 | 6.0E+00 | 6.0E+00 | 6.0E+00 | 6.0E+00 | 6.6E+00 | 9.3E+00 | 1.9E+01 | 3.0E+01 | 5.5E+01 |
| **50** | 1.1E+01 | 1.1E+01 | 1.1E+01 | 1.1E+01 | 1.1E+01 | 1.1E+01 | 1.2E+01 | 1.4E+01 | 1.6E+01 | 3.1E+01 | 4.8E+01 | 8.3E+01 |
| **70** | 5.1E+01 | 5.1E+01 | 5.1E+01 | 5.1E+01 | 5.1E+01 | 5.1E+01 | 5.1E+01 | 5.1E+01 | 5.1E+01 | 6.2E+01 | 7.8E+01 | 1.2E+02 |
| ***Stack Diameter = 2.0 m*** | | | | | | | | | | | | |
| **Stack height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **10** | 2.6E+00 | 2.6E+00 | 3.0E+00 | 4.2E+00 | 6.3E+00 | 9.2E+00 | 9.2E+00 | 1.0E+01 | 1.4E+01 | 2.5E+01 | 3.7E+01 | 6.3E+01 |
| **20** | 4.2E+00 | 4.2E+00 | 4.2E+00 | 4.7E+00 | 6.3E+00 | 9.2E+00 | 9.2E+00 | 1.0E+01 | 1.4E+01 | 2.5E+01 | 3.7E+01 | 6.3E+01 |
| **30** | 8.4E+00 | 8.4E+00 | 8.4E+00 | 8.4E+00 | 9.2E+00 | 9.2E+00 | 9.2E+00 | 1.0E+01 | 1.4E+01 | 2.5E+01 | 3.7E+01 | 6.3E+01 |
| **50** | 1.4E+01 | 1.4E+01 | 1.4E+01 | 1.4E+01 | 1.4E+01 | 1.4E+01 | 1.4E+01 | 1.5E+01 | 1.6E+01 | 3.1E+01 | 4.8E+01 | 8.3E+01 |
| **70** | 5.9E+01 | 5.9E+01 | 5.9E+01 | 5.9E+01 | 5.9E+01 | 5.9E+01 | 5.9E+01 | 5.9E+01 | 5.9E+01 | 7.0E+01 | 1.0E+02 | 1.5E+02 |
| **100** | 8.2E+01 | 8.2E+01 | 8.2E+01 | 8.2E+01 | 8.2E+01 | 8.2E+01 | 8.2E+01 | 8.2E+01 | 8.2E+01 | 8.2E+01 | 1.1E+02 | 1.7E+02 |
| ***Stack Diameter = 3.0 m*** | | | | | | | | | | | | |
| **Stack height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **10** | 3.3E+00 | 3.4E+00 | 3.9E+00 | 5.5E+00 | 1.1E+01 | 1.7E+01 | 1.7E+01 | 1.7E+01 | 1.7E+01 | 3.3E+01 | 5.0E+01 | 8.6E+01 |
| **20** | 6.5E+00 | 6.5E+00 | 6.5E+00 | 7.6E+00 | 1.1E+01 | 1.7E+01 | 1.7E+01 | 1.7E+01 | 1.7E+01 | 3.3E+01 | 5.0E+01 | 8.6E+01 |
| **30** | 1.1E+01 | 1.1E+01 | 1.1E+01 | 1.1E+01 | 1.2E+01 | 1.7E+01 | 1.7E+01 | 1.7E+01 | 1.7E+01 | 3.3E+01 | 5.0E+01 | 8.6E+01 |
| **50** | 1.7E+01 | 1.7E+01 | 1.7E+01 | 1.7E+01 | 1.7E+01 | 1.7E+01 | 1.7E+01 | 1.7E+01 | 1.7E+01 | 3.3E+01 | 5.0E+01 | 8.6E+01 |
| **70** | 8.0E+01 | 8.0E+01 | 8.0E+01 | 8.0E+01 | 8.0E+01 | 8.0E+01 | 8.0E+01 | 8.0E+01 | 8.0E+01 | 8.5E+01 | 1.2E+02 | 1.9E+02 |
| **100** | 1.3E+02 | 1.3E+02 | 1.3E+02 | 1.3E+02 | 1.3E+02 | 1.3E+02 | 1.3E+02 | 1.3E+02 | 1.3E+02 | 1.3E+02 | 1.9E+02 | 2.4E+02 |
| ***Stack Diameter = 4.0 m*** | | | | | | | | | | | | |
| **Stack height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **30** | 1.3E+01 | 1.3E+01 | 1.3E+01 | 1.3E+01 | 1.5E+01 | 2.1E+01 | 2.1E+01 | 2.1E+01 | 2.1E+01 | 4.0E+01 | 6.0E+01 | 9.8E+01 |
| **50** | 2.1E+01 | 2.1E+01 | 2.1E+01 | 2.1E+01 | 2.1E+01 | 2.1E+01 | 2.1E+01 | 2.1E+01 | 2.1E+01 | 4.0E+01 | 6.0E+01 | 9.8E+01 |
| **70** | 1.1E+02 | 1.1E+02 | 1.1E+02 | 1.1E+02 | 1.1E+02 | 1.1E+02 | 1.1E+02 | 1.1E+02 | 1.1E+02 | 1.1E+02 | 1.5E+02 | 2.3E+02 |
| **100** | 1.5E+02 | 1.5E+02 | 1.5E+02 | 1.5E+02 | 1.5E+02 | 1.5E+02 | 1.5E+02 | 1.5E+02 | 1.5E+02 | 1.5E+02 | 2.2E+02 | 3.4E+02 |

## Table 3 of §63.1215: 1-Hour Average HCl-Equivalent Emission Rates (lb/hr)--Flat Terrain

| | Distance to property boundary (m) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Stack Diameter = 0.3 m*** | | | | | | | | | | | | |
| Stack Height (m) | 30 | 50 | 70 | 100 | 200 | 300 | 500 | 700 | 1000 | 2000 | 3000 | 5000 |
| 5 | 3.9E+00 | 5.1E+00 | 7.6E+00 | 9.6E+00 | 1.6E+01 | 2.4E+01 | 4.3E+01 | 5.3E+01 | 6.2E+01 | 1.1E+02 | 1.7E+02 | 3.1E+02 |
| 10 | 9.7E+00 | 9.8E+00 | 1.1E+01 | 1.4E+01 | 2.0E+01 | 2.6E+01 | 4.6E+01 | 5.3E+01 | 6.2E+01 | 1.1E+02 | 1.7E+02 | 3.1E+02 |
| 20 | 2.2E+01 | 2.2E+01 | 2.2E+01 | 2.2E+01 | 2.5E+01 | 3.5E+01 | 5.3E+01 | 7.0E+01 | 9.5E+01 | 1.8E+02 | 2.8E+02 | 4.9E+02 |
| 30 | 3.9E+01 | 3.9E+01 | 3.9E+01 | 4.0E+01 | 4.4E+01 | 5.7E+01 | 9.0E+01 | 1.2E+02 | 1.7E+02 | 3.1E+02 | 4.5E+02 | 7.5E+02 |
| 50 | 1.2E+02 | 1.2E+02 | 1.2E+02 | 1.2E+02 | 1.2E+02 | 1.4E+02 | 1.9E+02 | 2.6E+02 | 3.6E+02 | 6.7E+02 | 9.7E+02 | 1.5E+03 |
| ***Stack Diameter = 0.5 m*** | | | | | | | | | | | | |
| Stack Height (m) | 30 | 50 | 70 | 100 | 200 | 300 | 500 | 700 | 1000 | 2000 | 3000 | 5000 |
| 5 | 6.9E+00 | 9.8E+00 | 1.5E+01 | 1.8E+01 | 3.2E+01 | 4.6E+01 | 7.5E+01 | 9.7E+01 | 1.2E+02 | 1.6E+02 | 2.1E+02 | 3.6E+02 |
| 10 | 1.3E+01 | 1.4E+01 | 1.5E+01 | 2.0E+01 | 3.7E+01 | 5.1E+01 | 7.9E+01 | 9.7E+01 | 1.2E+02 | 1.6E+02 | 2.2E+02 | 3.6E+02 |
| 20 | 3.5E+01 | 3.5E+01 | 3.5E+01 | 3.6E+01 | 4.6E+01 | 6.2E+01 | 8.1E+01 | 9.7E+01 | 1.2E+02 | 2.1E+02 | 3.0E+02 | 5.2E+02 |
| 30 | 5.2E+01 | 5.2E+01 | 5.2E+01 | 5.2E+01 | 5.3E+01 | 6.4E+01 | 9.8E+01 | 1.3E+02 | 1.8E+02 | 3.2E+02 | 4.7E+02 | 7.7E+02 |
| 50 | 1.3E+02 | 1.3E+02 | 1.3E+02 | 1.3E+02 | 1.3E+02 | 1.4E+02 | 2.0E+02 | 2.7E+02 | 3.7E+02 | 6.8E+02 | 9.7E+02 | 1.5E+03 |
| ***Stack Diameter = 1.0 m*** | | | | | | | | | | | | |
| Stack Height (m) | 30 | 50 | 70 | 100 | 200 | 300 | 500 | 700 | 1000 | 2000 | 3000 | 5000 |
| 10 | 3.0E+01 | 3.4E+01 | 3.8E+01 | 5.1E+01 | 9.0E+01 | 1.2E+02 | 1.7E+02 | 2.2E+02 | 2.7E+02 | 4.3E+02 | 5.0E+02 | 6.1E+02 |
| 20 | 5.5E+01 | 5.5E+01 | 5.5E+01 | 5.8E+01 | 9.0E+01 | 1.2E+02 | 1.7E+02 | 2.2E+02 | 2.7E+02 | 4.3E+02 | 5.0E+02 | 7.1E+02 |
| 30 | 9.6E+01 | 9.6E+01 | 9.6E+01 | 9.6E+01 | 1.1E+02 | 1.2E+02 | 1.7E+02 | 2.2E+02 | 2.7E+02 | 4.3E+02 | 5.8E+02 | 8.8E+02 |
| 50 | 1.7E+02 | 1.7E+02 | 1.7E+02 | 1.7E+02 | 1.7E+02 | 1.7E+02 | 2.2E+02 | 2.9E+02 | 4.0E+02 | 7.3E+02 | 1.0E+03 | 1.6E+03 |
| 70 | 7.0E+02 | 7.0E+02 | 7.0E+02 | 7.0E+02 | 7.0E+02 | 7.0E+02 | 7.6E+02 | 9.9E+02 | 1.3E+03 | 2.0E+03 | 2.6E+03 | 3.8E+03 |
| ***Stack Diameter = 1.5 m*** | | | | | | | | | | | | |
| Stack Height (m) | 30 | 50 | 70 | 100 | 200 | 300 | 500 | 700 | 1000 | 2000 | 3000 | 5000 |
| 10 | 3.9E+01 | 5.0E+01 | 6.1E+01 | 7.5E+01 | 1.2E+02 | 2.0E+02 | 2.5E+02 | 3.4E+02 | 4.6E+02 | 7.2E+02 | 8.6E+02 | 1.0E+03 |
| 20 | 7.1E+01 | 7.1E+01 | 7.2E+01 | 7.5E+01 | 1.2E+02 | 2.0E+02 | 2.5E+02 | 3.4E+02 | 4.6E+02 | 7.2E+02 | 8.6E+02 | 1.1E+03 |
| 30 | 1.2E+02 | 1.2E+02 | 1.2E+02 | 1.2E+02 | 1.5E+02 | 2.0E+02 | 2.5E+02 | 3.4E+02 | 4.6E+02 | 7.2E+02 | 8.6E+02 | 1.1E+03 |
| 50 | 2.2E+02 | 2.2E+02 | 2.2E+02 | 2.2E+02 | 2.2E+02 | 2.2E+02 | 2.5E+02 | 3.4E+02 | 4.6E+02 | 8.1E+02 | 1.1E+03 | 1.7E+03 |
| 70 | 9.6E+02 | 9.6E+02 | 9.6E+02 | 9.6E+02 | 9.6E+02 | 9.6E+02 | 1.0E+03 | 1.3E+03 | 1.7E+03 | 2.9E+03 | 3.8E+03 | 5.5E+03 |
| ***Stack Diameter = 2.0 m*** | | | | | | | | | | | | |
| Stack Height (m) | 30 | 50 | 70 | 100 | 200 | 300 | 500 | 700 | 1000 | 2000 | 3000 | 5000 |
| 10 | 4.7E+01 | 6.0E+01 | 7.3E+01 | 9.2E+01 | 1.7E+02 | 2.6E+02 | 3.2E+02 | 4.2E+02 | 5.6E+02 | 9.7E+02 | 1.3E+03 | 1.5E+03 |
| 20 | 8.8E+01 | 8.8E+01 | 8.8E+01 | 9.4E+01 | 1.7E+02 | 2.6E+02 | 3.2E+02 | 4.2E+02 | 5.6E+02 | 9.7E+02 | 1.3E+03 | 1.7E+03 |
| 30 | 1.5E+02 | 1.5E+02 | 1.5E+02 | 1.5E+02 | 1.8E+02 | 2.6E+02 | 3.2E+02 | 4.2E+02 | 5.6E+02 | 9.7E+02 | 1.3E+03 | 1.7E+03 |
| 50 | 2.7E+02 | 2.7E+02 | 2.7E+02 | 2.7E+02 | 2.7E+02 | 2.7E+02 | 3.2E+02 | 4.2E+02 | 5.6E+02 | 9.7E+02 | 1.3E+03 | 1.9E+03 |
| 70 | 1.3E+03 | 1.3E+03 | 1.3E+03 | 1.3E+03 | 1.3E+03 | 1.3E+03 | 1.4E+03 | 1.7E+03 | 2.2E+03 | 3.2E+03 | 4.1E+03 | 5.9E+03 |
| 100 | 2.8E+03 | 2.8E+03 | 2.8E+03 | 2.8E+03 | 2.8E+03 | 2.8E+03 | 2.8E+03 | 2.8E+03 | 3.3E+03 | 5.0E+03 | 6.5E+03 | 7.7E+03 |
| ***Stack Diameter = 3.0 m*** | | | | | | | | | | | | |
| Stack Height (m) | 30 | 50 | 70 | 100 | 200 | 300 | 500 | 700 | 1000 | 2000 | 3000 | 5000 |
| 10 | 6.2E+01 | 6.5E+01 | 7.3E+01 | 9.2E+01 | 2.1E+02 | 3.3E+02 | 5.1E+02 | 7.0E+02 | 9.3E+02 | 1.2E+03 | 1.5E+03 | 1.5E+03 |
| 20 | 1.5E+02 | 1.5E+02 | 1.6E+02 | 1.9E+02 | 2.4E+02 | 3.5E+02 | 5.3E+02 | 7.0E+02 | 9.3E+02 | 1.4E+03 | 2.0E+03 | 2.8E+03 |
| 30 | 1.9E+02 | 1.9E+02 | 1.9E+02 | 1.9E+02 | 2.4E+02 | 3.5E+02 | 5.3E+02 | 7.0E+02 | 9.3E+02 | 1.6E+03 | 2.1E+03 | 2.8E+03 |
| 50 | 4.0E+02 | 4.0E+02 | 4.0E+02 | 4.0E+02 | 4.2E+02 | 4.8E+02 | 5.3E+02 | 7.0E+02 | 9.3E+02 | 1.6E+03 | 2.1E+03 | 2.8E+03 |
| 70 | 2.2E+03 | 2.2E+03 | 2.2E+03 | 2.2E+03 | 2.2E+03 | 2.3E+03 | 2.3E+03 | 2.8E+03 | 3.4E+03 | 3.9E+03 | 4.7E+03 | 6.6E+03 |
| 100 | 3.3E+03 | 3.3E+03 | 3.3E+03 | 3.3E+03 | 3.3E+03 | 3.3E+03 | 3.3E+03 | 3.3E+03 | 3.7E+03 | 6.0E+03 | 7.1E+03 | 8.2E+03 |
| ***Stack Diameter = 4.0 m*** | | | | | | | | | | | | |
| Stack Height (m) | 30 | 50 | 70 | 100 | 200 | 300 | 500 | 700 | 1000 | 2000 | 3000 | 5000 |
| 30 | 2.3E+02 | 2.3E+02 | 2.3E+02 | 2.4E+02 | 3.2E+02 | 5.3E+02 | 7.7E+02 | 1.0E+03 | 1.3E+03 | 2.1E+03 | 2.6E+03 | 4.1E+03 |
| 50 | 4.8E+02 | 4.8E+02 | 4.8E+02 | 4.8E+02 | 5.0E+02 | 5.8E+02 | 7.7E+02 | 1.0E+03 | 1.3E+03 | 2.3E+03 | 3.0E+03 | 4.2E+03 |
| 70 | 2.4E+03 | 2.4E+03 | 2.4E+03 | 2.4E+03 | 2.5E+03 | 2.6E+03 | 3.2E+03 | 4.3E+03 | 4.5E+03 | 4.7E+03 | 5.4E+03 | 7.2E+03 |
| 100 | 5.4E+03 | 5.4E+03 | 5.4E+03 | 5.4E+03 | 5.4E+03 | 5.4E+03 | 5.4E+03 | 5.4E+03 | 5.5E+03 | 8.1E+03 | 8.8E+03 | 1.0E+04 |

## Table 4 of §63.1215: 1-Hour Average HCl-Equivalent Emission Rate Limits (lb/hr)--Simple Elevated Terrain

| | Distance to property boundary (m) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Stack Diameter = 0.3 m*** | | | | | | | | | | | | |
| **Stack Height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **5** | 1.4E+00 | 1.9E+00 | 2.6E+00 | 3.8E+00 | 6.8E+00 | 9.4E+00 | 1.5E+01 | 2.1E+01 | 3.3E+01 | 8.1E+01 | 1.4E+02 | 2.7E+02 |
| **10** | 4.0E+00 | 4.0E+00 | 4.6E+00 | 6.4E+00 | 6.8E+00 | 9.4E+00 | 1.5E+01 | 2.1E+01 | 3.3E+01 | 8.1E+01 | 1.4E+02 | 2.7E+02 |
| **20** | 1.1E+01 | 1.1E+01 | 1.1E+01 | 1.1E+01 | 1.2E+01 | 1.5E+01 | 2.4E+01 | 3.5E+01 | 5.4E+01 | 1.3E+02 | 2.1E+02 | 4.0E+02 |
| **30** | 2.3E+01 | 2.3E+01 | 2.3E+01 | 2.3E+01 | 2.5E+01 | 3.3E+01 | 4.4E+01 | 5.5E+01 | 7.3E+01 | 1.6E+02 | 2.7E+02 | 5.2E+02 |
| **50** | 7.3E+01 | 7.3E+01 | 7.3E+01 | 7.3E+01 | 7.3E+01 | 8.3E+01 | 9.0E+01 | 9.0E+01 | 9.0E+01 | 2.1E+02 | 3.5E+02 | 6.8E+02 |
| ***Stack Diameter = 0.5 m*** | | | | | | | | | | | | |
| **Stack Height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **5** | 1.9E+00 | 2.7E+00 | 3.7E+00 | 5.9E+00 | 1.4E+01 | 1.7E+01 | 2.4E+01 | 3.5E+01 | 5.4E+01 | 1.0E+02 | 1.6E+02 | 3.0E+02 |
| **10** | 5.6E+00 | 5.6E+00 | 6.4E+00 | 8.9E+00 | 1.4E+01 | 1.7E+01 | 2.4E+01 | 3.5E+01 | 5.4E+01 | 1.0E+02 | 1.6E+02 | 3.0E+02 |
| **20** | 1.6E+01 | 1.6E+01 | 1.6E+01 | 1.6E+01 | 1.6E+01 | 1.7E+01 | 2.4E+01 | 3.5E+01 | 5.4E+01 | 1.3E+02 | 2.1E+02 | 4.0E+02 |
| **30** | 2.7E+01 | 2.7E+01 | 2.7E+01 | 2.7E+01 | 2.7E+01 | 3.3E+01 | 4.4E+01 | 5.8E+01 | 8.5E+01 | 1.8E+02 | 2.9E+02 | 5.5E+02 |
| **50** | 7.6E+01 | 7.6E+01 | 7.6E+01 | 7.6E+01 | 7.6E+01 | 8.3E+01 | 1.1E+02 | 1.3E+02 | 1.3E+02 | 2.4E+02 | 3.9E+02 | 7.2E+02 |
| ***Stack Diameter = 1.0 m*** | | | | | | | | | | | | |
| **Stack Height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **10** | 1.0E+01 | 1.0E+01 | 1.2E+01 | 1.7E+01 | 3.9E+01 | 3.9E+01 | 4.5E+01 | 5.8E+01 | 7.9E+01 | 1.6E+02 | 2.4E+02 | 4.4E+02 |
| **20** | 2.6E+01 | 2.6E+01 | 2.6E+01 | 2.8E+01 | 3.9E+01 | 3.9E+01 | 4.5E+01 | 5.8E+01 | 7.9E+01 | 1.6E+02 | 2.4E+02 | 4.5E+02 |
| **30** | 4.2E+01 | 4.2E+01 | 4.2E+01 | 4.2E+01 | 4.2E+01 | 4.2E+01 | 4.5E+01 | 5.8E+01 | 8.5E+01 | 1.8E+02 | 2.9E+02 | 5.5E+02 |
| **50** | 8.9E+01 | 8.9E+01 | 8.9E+01 | 8.9E+01 | 8.9E+01 | 8.9E+01 | 1.1E+02 | 1.4E+02 | 1.7E+02 | 3.3E+02 | 5.0E+02 | 8.7E+02 |
| **70** | 3.8E+02 | 3.8E+02 | 3.8E+02 | 3.8E+02 | 3.8E+02 | 3.8E+02 | 3.8E+02 | 4.0E+02 | 4.1E+02 | 4.3E+02 | 6.1E+02 | 1.0E+03 |
| ***Stack Diameter = 1.5 m*** | | | | | | | | | | | | |
| **Stack Height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **10** | 2.1E+01 | 2.1E+01 | 2.5E+01 | 3.6E+01 | 5.4E+01 | 6.3E+01 | 6.3E+01 | 6.9E+01 | 9.8E+01 | 2.0E+02 | 3.2E+02 | 5.7E+02 |
| **20** | 3.3E+01 | 3.3E+01 | 3.3E+01 | 3.7E+01 | 5.4E+01 | 6.3E+01 | 6.3E+01 | 6.9E+01 | 9.8E+01 | 2.0E+02 | 3.2E+02 | 5.7E+02 |
| **30** | 6.3E+01 | 6.3E+01 | 6.3E+01 | 6.3E+01 | 6.3E+01 | 6.3E+01 | 6.3E+01 | 6.9E+01 | 9.8E+01 | 2.0E+02 | 3.2E+02 | 5.8E+02 |
| **50** | 1.0E+02 | 1.0E+02 | 1.0E+02 | 1.0E+02 | 1.0E+02 | 1.0E+02 | 1.2E+02 | 1.4E+02 | 1.7E+02 | 3.3E+02 | 5.0E+02 | 8.7E+02 |
| **70** | 4.8E+02 | 4.8E+02 | 4.8E+02 | 4.8E+02 | 4.8E+02 | 4.8E+02 | 4.8E+02 | 4.8E+02 | 4.8E+02 | 6.5E+02 | 8.2E+02 | 1.3E+03 |
| ***Stack Diameter = 2.0 m*** | | | | | | | | | | | | |
| **Stack Height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **10** | 2.7E+01 | 2.7E+01 | 3.2E+01 | 4.4E+01 | 6.6E+01 | 9.7E+01 | 9.7E+01 | 1.1E+02 | 1.5E+02 | 2.6E+02 | 3.9E+02 | 6.6E+02 |
| **20** | 4.0E+01 | 4.0E+01 | 4.0E+01 | 4.4E+01 | 6.6E+01 | 9.7E+01 | 9.7E+01 | 1.1E+02 | 1.5E+02 | 2.6E+02 | 3.9E+02 | 6.6E+02 |
| **30** | 7.9E+01 | 7.9E+01 | 7.9E+01 | 7.9E+01 | 9.1E+01 | 9.7E+01 | 9.7E+01 | 1.1E+02 | 1.5E+02 | 2.6E+02 | 3.9E+02 | 6.6E+02 |
| **50** | 1.3E+02 | 1.3E+02 | 1.3E+02 | 1.3E+02 | 1.3E+02 | 1.3E+02 | 1.3E+02 | 1.4E+02 | 1.7E+02 | 3.3E+02 | 5.0E+02 | 8.7E+02 |
| **70** | 5.6E+02 | 5.6E+02 | 5.6E+02 | 5.6E+02 | 5.6E+02 | 5.6E+02 | 5.6E+02 | 5.6E+02 | 5.6E+02 | 7.3E+02 | 1.1E+03 | 1.5E+03 |
| **100** | 8.6E+02 | 8.6E+02 | 8.6E+02 | 8.6E+02 | 8.6E+02 | 8.6E+02 | 8.6E+02 | 8.6E+02 | 8.6E+02 | 8.6E+02 | 1.2E+03 | 1.7E+03 |
| ***Stack Diameter = 3.0 m*** | | | | | | | | | | | | |
| **Stack Height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **10** | 3.5E+01 | 3.5E+01 | 4.1E+01 | 5.8E+01 | 1.2E+02 | 1.6E+02 | 1.8E+02 | 1.8E+02 | 1.8E+02 | 3.5E+02 | 5.2E+02 | 9.0E+02 |
| **20** | 6.2E+01 | 6.2E+01 | 6.2E+01 | 7.2E+01 | 1.2E+02 | 1.6E+02 | 1.8E+02 | 1.8E+02 | 1.8E+02 | 3.5E+02 | 5.2E+02 | 9.0E+02 |
| **30** | 1.0E+02 | 1.0E+02 | 1.0E+02 | 1.0E+02 | 1.2E+02 | 1.6E+02 | 1.8E+02 | 1.8E+02 | 1.8E+02 | 3.5E+02 | 5.2E+02 | 9.0E+02 |
| **50** | 1.8E+02 | 1.8E+02 | 1.8E+02 | 1.8E+02 | 1.8E+02 | 1.8E+02 | 1.8E+02 | 1.8E+02 | 1.8E+02 | 3.5E+02 | 5.2E+02 | 9.0E+02 |
| **70** | 7.5E+02 | 7.5E+02 | 7.5E+02 | 7.5E+02 | 7.5E+02 | 7.5E+02 | 7.5E+02 | 7.5E+02 | 7.5E+02 | 8.9E+02 | 1.3E+03 | 2.0E+03 |
| **100** | 1.4E+03 | 1.4E+03 | 1.4E+03 | 1.4E+03 | 1.4E+03 | 1.4E+03 | 1.4E+03 | 1.4E+03 | 1.4E+03 | 1.4E+03 | 2.0E+03 | 2.6E+03 |
| ***Stack Diameter = 4.0 m*** | | | | | | | | | | | | |
| **Stack Height (m)** | **30** | **50** | **70** | **100** | **200** | **300** | **500** | **700** | **1000** | **2000** | **3000** | **5000** |
| **30** | 1.2E+02 | 1.2E+02 | 1.2E+02 | 1.2E+02 | 1.4E+02 | 2.0E+02 | 2.2E+02 | 2.2E+02 | 2.2E+02 | 4.2E+02 | 6.3E+02 | 1.0E+03 |
| **50** | 2.2E+02 | 2.2E+02 | 2.2E+02 | 2.2E+02 | 2.2E+02 | 2.2E+02 | 2.2E+02 | 2.2E+02 | 2.2E+02 | 4.2E+02 | 6.3E+02 | 1.0E+03 |
| **70** | 1.0E+03 | 1.0E+03 | 1.0E+03 | 1.0E+03 | 1.0E+03 | 1.0E+03 | 1.0E+03 | 1.0E+03 | 1.0E+03 | 1.1E+03 | 1.6E+03 | 2.4E+03 |
| **100** | 1.6E+03 | 1.6E+03 | 1.6E+03 | 1.6E+03 | 1.6E+03 | 1.6E+03 | 1.6E+03 | 1.6E+03 | 1.6E+03 | 1.6E+03 | 2.3E+03 | 3.6E+03 |

**[63.1216]**

**What are the standards for solid fuel boilers that burn hazardous waste?**

(a) *Emission limits for existing sources.* You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans, either carbon monoxide or hydrocarbon emissions in excess of the limits provided by paragraph (a)(5) of this section;

(2) Mercury in excess of 11 µg/dscm corrected to 7 percent oxygen;

(3) For cadmium and lead combined, except for an area source as defined under §63.2, emissions in excess of 180 µg/dscm, corrected to 7 percent oxygen;

(4) For arsenic, beryllium, and chromium combined, except for an area source as defined under §63.2, emissions in excess of 380 µg/dscm, corrected to 7 percent oxygen;

(5) For carbon monoxide and hydrocarbons, either:

(i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (a)(5)(ii) of this section, you must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(ii) Hydrocarbons in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) For hydrogen chloride and chlorine combined, except for an area source as defined under §63.2, emissions in excess of 440 parts per million by volume, expressed as a chloride (Cl(-)) equivalent, dry basis and corrected to 7 percent oxygen; and

(7) For particulate matter, except for an area source as defined under §63.2 or as provided by paragraph (e) of this section, emissions in excess of 68 mg/dscm corrected to 7 percent oxygen.

(b) *Emission limits for new sources.* You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans, either carbon monoxide or hydrocarbon emissions in excess of the limits provided by paragraph (b)(5) of this section;

(2) Mercury in excess of 11 µg/dscm corrected to 7 percent oxygen;

(3) For cadmium and lead combined, except for an area source as defined under §63.2, emissions in excess of 180 µg/dscm, corrected to 7 percent oxygen;

(4) For arsenic, beryllium, and chromium combined, except for an area source as defined under §63.2, emissions in excess of 190 µg/dscm, corrected to 7 percent oxygen;

(5) For carbon monoxide and hydrocarbons, either:

(i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (b)(5)(ii) of this section, you must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(ii) Hydrocarbons in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) For hydrogen chloride and chlorine combined, except for an area source as defined under §63.2, emissions in excess of 73 parts per million by volume, expressed as a chloride (Cl(-)) equivalent, dry basis and corrected to 7 percent oxygen; and

(7) For particulate matter, except for an area source as defined under §63.2 or as provided by paragraph (e) of this section, emissions in excess of 34 mg/dscm corrected to 7 percent oxygen.

(c) *Destruction and removal efficiency (DRE) standard.* (1) *99.99% DRE.* Except as provided in paragraph (c)(2) of this section, you must achieve a DRE of 99.99% for each principle organic hazardous constituent (POHC) designated under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$DRE = [1 - (W_{out} \div W_{in})] \times 100\%$$

Where:

$W_{in}$ = mass feedrate of one POHC in a waste feedstream; and

$W_{out}$ = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) *99.9999% DRE.* If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see §261.31 of this chapter), you must achieve a DRE of 99.9999% for each POHC that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-*p*-dioxins and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) *Principal organic hazardous constituents (POHCs).* (i) You must treat the POHCs in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) *Significant figures.* The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

(e) *Alternative to the particulate matter standard.* (1) *General.* In lieu of complying with the particulate matter standards of this section, you may elect to comply with the following alternative metal emission control requirement:

(2) *Alternative metal emission control requirements for existing solid fuel boilers.* (i) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain cadmium, lead, and selenium in excess of 180 µg/dscm, combined emissions, corrected to 7 percent oxygen; and,

(ii) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel in excess of 380 µg/dscm, combined emissions, corrected to 7 percent oxygen.

(3) Alternative metal emission control requirements for new solid fuel boilers. (i) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain cadmium, lead, and selenium in excess of 180 µg/dscm, combined emissions, corrected to 7 percent oxygen; and,

(ii) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel in excess of 190 µg/dscm, combined emissions, corrected to 7 percent oxygen.

(4) *Operating limits.* Semivolatile and low volatile metal operating parameter limits must be established to ensure compliance with the alternative emission limitations described in paragraphs (e)(2) and (e)(3) of this section pursuant to §63.1209(n), except that semivolatile metal feedrate limits apply to lead, cadmium, and selenium, combined, and low volatile metal feedrate limits apply to arsenic, beryllium, chromium, antimony, cobalt, manganese, and nickel, combined.

(f) *Elective standards for area sources.* Area sources as defined under §63.2 are subject to the standards for cadmium and lead, the standards for arsenic, beryllium, and chromium, the standards for hydrogen chloride and chlorine, and the standards for particulate matter under this section if they elect under §266.100(b)(3) of this chapter to comply with those standards in lieu of the standards under 40 CFR 266.105, 266.106, and 266.107 to control those pollutants.

**[63.1217]**

**What are the standards for liquid fuel boilers that burn hazardous waste?**

(a) *Emission limits for existing sources.* You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1)(i) Dioxins and furans in excess of 0.40 ng TEQ/dscm, corrected to 7 percent oxygen, for liquid fuel boilers equipped with a dry air pollution control system; or

(ii) Either carbon monoxide or hydrocarbon emissions in excess of the limits provided by paragraph (a)(5) of this section for sources not equipped with a dry air pollution control system;

(iii) A source equipped with a wet air pollution control system followed by a dry air pollution control system is not considered to be a dry air pollution control system, and a source equipped with a dry air

pollution control system followed by a wet air pollution control system is considered to be a dry air pollution control system for purposes of this emission limit;

(2) For mercury, except as provided for in paragraph (a)(2)(iii) of this section:

(i) When you burn hazardous waste with an as-fired heating value less than 10,000 Btu/lb, emissions in excess of 19 µg/dscm, corrected to 7 percent oxygen, on an (not-to-exceed) annual averaging period;

(ii) When you burn hazardous waste with an as-fired heating value 10,000 Btu/lb or greater, emissions in excess of $4.2 \times 10^{1-5}$ lbs mercury attributable to the hazardous waste per million Btu heat input from the hazardous waste on an (not-to-exceed) annual averaging period;

(iii) The boiler operated by Diversified Scientific Services, Inc. with EPA identification number TND982109142, and which burns radioactive waste mixed with hazardous waste, must comply with the mercury emission standard under §63.1219(a)(2);

(3) For cadmium and lead combined, except for an area source as defined under §63.2,

(i) When you burn hazardous waste with an as-fired heating value less than 10,000 Btu/lb, emissions in excess of 150 µg/dscm, corrected to 7 percent oxygen, on an (not-to-exceed) annual averaging period;

(ii) When you burn hazardous waste with an as-fired heating value of 10,000 Btu/lb or greater, emissions in excess of $8.2 \times 10^{1-5}$ lbs combined cadmium and lead emissions attributable to the hazardous waste per million Btu heat input from the hazardous waste on an (not-to-exceed) annual averaging period;

(4) For chromium, except for an area source as defined under §63.2:

(i) When you burn hazardous waste with an as-fired heating value less than 10,000 Btu/lb, emissions in excess of 370 µg/dscm, corrected to 7 percent oxygen;

(ii) When you burn hazardous waste with an as-fired heating value of 10,000 Btu/lb or greater, emissions in excess of $1.3 \times 10^{1-4}$ lbs chromium emissions attributable to the hazardous waste per million Btu heat input from the hazardous waste;

(5) For carbon monoxide and hydrocarbons, either:

(i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (a)(5)(ii) of this section, you must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(ii) Hydrocarbons in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) For hydrogen chloride and chlorine, except for an area source as defined under §63.2:

(i) When you burn hazardous waste with an as-fired heating value less than 10,000 Btu/lb, emissions in excess of 31 parts per million by volume, combined emissions, expressed as a chloride (Cl(-)) equivalent, dry basis and corrected to 7 percent oxygen;

(ii) When you burn hazardous waste with an as-fired heating value of 10,000 Btu/lb or greater, emissions in excess of $5.08 \times 10^{1-2}$ lbs combined emissions of hydrogen chloride and chlorine gas attributable to the hazardous waste per million Btu heat input from the hazardous waste;

(7) For particulate matter, except for an area source as defined under §63.2 or as provided by paragraph (e) of this section, emissions in excess of 80 mg/dscm corrected to 7 percent oxygen.

(b) *Emission limits for new sources.* You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1)(i) Dioxins and furans in excess of 0.40 ng TEQ/dscm, corrected to 7 percent oxygen, for liquid fuel boilers equipped with a dry air pollution control system; or

(ii) Either carbon monoxide or hydrocarbon emissions in excess of the limits provided by paragraph (b)(5) of this section for sources not equipped with a dry air pollution control system;

(iii) A source equipped with a wet air pollution control system followed by a dry air pollution control system is not considered to be a dry air pollution control system, and a source equipped with a dry air pollution control system followed by a wet air pollution control system is considered to be a dry air pollution control system for purposes of this emission limit;

(2) For mercury:

(i) When you burn hazardous waste with an as-fired heating value less than 10,000 Btu/lb, emissions in excess of 6.8 µg/dscm, corrected to 7 percent oxygen, on an (not-to-exceed) annual averaging period;

(ii) When you burn hazardous waste with an as-fired heating value of 10,000 Btu/lb or greater, emissions in excess of $1.2 \times 10^{1-6}$ lbs mercury emissions attributable to the hazardous waste per million Btu heat input from the hazardous waste on an (not-to-exceed) annual averaging period;

(3) For cadmium and lead combined, except for an area source as defined under §63.2:

(i) When you burn hazardous waste with an as-fired heating value less than 10,000 Btu/lb, emissions in excess of 78 µg/dscm, corrected to 7 percent oxygen, on an (not-to-exceed) annual averaging period;

(ii) When you burn hazardous waste with an as-fired heating value greater than or equal to 10,000 Btu/lb, emissions in excess of $6.2 \times 10^{1-6}$ lbs combined cadmium and lead emissions attributable to the hazardous waste per million Btu heat input from the hazardous waste on an (not-to-exceed) annual averaging period;

(4) For chromium, except for an area source as defined under §63.2:

(i) When you burn hazardous waste with an as-fired heating value less than 10,000 Btu/lb, emissions in excess of 12 µg/dscm, corrected to 7 percent oxygen;

(ii) When you burn hazardous waste with an as-fired heating value of 10,000 Btu/lb or greater, emissions in excess of $1.4 \times 10^{1-5}$ lbs chromium emissions attributable to the hazardous waste per million Btu heat input from the hazardous waste;

(5) For carbon monoxide and hydrocarbons, either:

(i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (b)(5)(ii) of this section, you must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons

do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(ii) Hydrocarbons in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) For hydrogen chloride and chlorine, except for an area source as defined under §63.2:

(i) When you burn hazardous waste with an as-fired heating value less than 10,000 Btu/lb, emissions in excess of 31 parts per million by volume, combined emissions, expressed as a chloride (Cl(-)) equivalent, dry basis and corrected to 7 percent oxygen;

(ii) When you burn hazardous waste with an as-fired heating value of 10,000 Btu/lb or greater, emissions in excess of $5.08 \times 10^{1-2}$ lbs combined emissions of hydrogen chloride and chlorine gas attributable to the hazardous waste per million Btu heat input from the hazardous waste;

(7) For particulate matter, except for an area source as defined under §63.2 or as provided by paragraph (e) of this section, emissions in excess of 20 mg/dscm corrected to 7 percent oxygen.

(c) *Destruction and removal efficiency (DRE) standard.* (1) *99.99% DRE.* Except as provided in paragraph (c)(2) of this section, you must achieve a DRE of 99.99% for each principle organic hazardous constituent (POHC) designated under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$DRE = [1 - (W_{out} \div W_{in})] \times 100\%$$

Where:

$W_{in}$ = mass feedrate of one POHC in a waste feedstream; and

$W_{out}$ = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) *99.9999% DRE.* If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see §261.31 of this chapter), you must achieve a DRE of 99.9999% for each POHC that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-*p*-dioxins and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) *Principal organic hazardous constituents (POHCs).* (i) You must treat the POHCs in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) *Significant figures.* The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

(e) *Alternative to the particulate matter standard.* (1) *General.* In lieu of complying with the particulate matter standards of this section, you may elect to comply with the following alternative metal emission control requirement:

(2) *Alternative metal emission control requirements for existing liquid fuel boilers.* (i) When you burn hazardous waste with a heating value less than 10,000 Btu/lb:

(A) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain cadmium, lead, and selenium, combined, in excess of 150 µg/dscm, corrected to 7 percent oxygen; and

(B) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel, combined, in excess of 370 µg/dscm, corrected to 7 percent oxygen;

(ii) When you burn hazardous waste with a heating value of 10,000 Btu/lb or greater:

(A) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain in excess of $8.2 \times 10^{1-5}$ lbs combined emissions of cadmium, lead, and selenium attributable to the hazardous waste per million Btu heat input from the hazardous waste; and

(B) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain either in excess of $1.3 \times 10^{1-4}$ lbs combined emissions of antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel attributable to the hazardous waste per million Btu heat input from the hazardous waste;

(3) *Alternative metal emission control requirements for new liquid fuel boilers.* (i) When you burn hazardous waste with a heating value less than 10,000 Btu/lb:

(A) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain cadmium, lead, and selenium, combined, in excess of 78 µg/dscm, corrected to 7 percent oxygen; and

(B) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel, combined, in excess of 12 µg/dscm, corrected to 7 percent oxygen;

(ii) When you burn hazardous waste with a heating value greater than or equal to 10,000 Btu/lb:

(A) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain in excess of $6.2 \times 10^{1-6}$ lbs combined emissions of cadmium, lead, and selenium attributable to the hazardous waste per million Btu heat input from the hazardous waste; and

(B) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain either in excess of $1.4 \times 10^{1-5}$ lbs combined emissions of antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel attributable to the hazardous waste per million Btu heat input from the hazardous waste;

(4) *Operating limits.* Semivolatile and low volatile metal operating parameter limits must be established to ensure compliance with the alternative emission limitations described in paragraphs (e)(2) and (e)(3) of this section pursuant to §63.1209(n), except that semivolatile metal feedrate limits apply to lead,

cadmium, and selenium, combined, and low volatile metal feedrate limits apply to arsenic, beryllium, chromium, antimony, cobalt, manganese, and nickel, combined.

(f) *Elective standards for area sources.* Area sources as defined under §63.2 are subject to the standards for cadmium and lead, the standards for chromium, the standards for hydrogen chloride and chlorine, and the standards for particulate matter under this section if they elect under §266.100(b)(3) of this chapter to comply with those standards in lieu of the standards under 40 CFR 266.105, 266.106, and 266.107 to control those pollutants.

**[63.1218]**

**What are the standards for hydrochloric acid production furnaces that burn hazardous waste?**

(a) *Emission limits for existing sources.* You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans, either carbon monoxide or hydrocarbon emissions in excess of the limits provided by paragraph (a)(5) of this section;

(2) For mercury, hydrogen chloride and chlorine gas emissions in excess of the levels provided by paragraph (a)(6) of this section;

(3) For lead and cadmium, except for an area source as defined under §63.2, hydrogen chloride and chlorine gas emissions in excess of the levels provided by paragraph (a)(6) of this section;

(4) For arsenic, beryllium, and chromium, except for an area source as defined under §63.2, hydrogen chloride and chlorine gas emissions in excess of the levels provided by paragraph (a)(6) of this section;

(5) For carbon monoxide and hydrocarbons, either:

(i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (a)(5)(ii) of this section, you must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(ii) Hydrocarbons in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) For hydrogen chloride and chlorine gas, either:

(i) Emission in excess of 150 parts per million by volume, combined emissions, expressed as a chloride (Cl( ! -) equivalent, dry basis and corrected to 7 percent oxygen; or

(ii) Emissions greater than the levels that would be emitted if the source is achieving a system removal efficiency (SRE) of less than 99.923 percent for total chlorine and chloride fed to the combustor. You must calculate SRE from the following equation:

$SRE = [1 \ ! - (Cl_{out} / Cl_{in})] \times 100\%$

Where:

Cl in = mass feedrate of total chlorine or chloride in all feedstreams, reported as chloride; and

Cl out = mass emission rate of hydrogen chloride and chlorine gas, reported as chloride, in exhaust emissions prior to release to the atmosphere.

(7) For particulate matter, except for an area source as defined under §63.2, hydrogen chloride and chlorine gas emissions in excess of the levels provided by paragraph (a)(6) of this section.

(b) *Emission limits for new sources.* You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans, either carbon monoxide or hydrocarbon emissions in excess of the limits provided by paragraph (b)(5) of this section;

(2) For mercury, hydrogen chloride and chlorine gas emissions in excess of the levels provided by paragraph (b)(6) of this section;

(3) For lead and cadmium, except for an area source as defined under §63.2, hydrogen chloride and chlorine gas emissions in excess of the levels provided by paragraph (b)(6) of this section;

(4) For arsenic, beryllium, and chromium, except for an area source as defined under §63.2, hydrogen chloride and chlorine gas emissions in excess of the levels provided by paragraph (b)(6) of this section;

(5) For carbon monoxide and hydrocarbons, either:

(i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (b)(5)(ii) of this section, you must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(ii) Hydrocarbons in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) For hydrogen chloride and chlorine gas, either:

(i) Emission in excess of 25 parts per million by volume, combined emissions, expressed as a chloride (Cl(!-) equivalent, dry basis and corrected to 7 percent oxygen; or

(ii) Emissions greater than the levels that would be emitted if the source is achieving a system removal efficiency (SRE) of less than 99.987 percent for total chlorine and chloride fed to the combustor. You must calculate SRE from the following equation:

$SRE = [1 \ !- (Cl_{out} / Cl_{in})] \times 100\%$

Where:

Cl in = mass feedrate of total chlorine or chloride in all feedstreams, reported as chloride; and

Cl out = mass emission rate of hydrogen chloride and chlorine gas, reported as chloride, in exhaust emissions prior to release to the atmosphere.

(7) For particulate matter, except for an area source as defined under §63.2, hydrogen chloride and chlorine gas emissions in excess of the levels provided by paragraph (b)(6) of this section.

(c) *Destruction and removal efficiency (DRE) standard.* (1) *99.99% DRE.* Except as provided in paragraph (c)(2) of this section, you must achieve a DRE of 99.99% for each principle organic hazardous constituent (POHC) designated under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$DRE = [1 - (W_{out} / W_{in})] \times 100\%$

Where:

Win = mass feedrate of one POHC in a waste feedstream; and

Wout = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) *99.9999% DRE.* If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see §261.31 of this chapter), you must achieve a DRE of 99.9999% for each POHC that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-*p*-dioxins and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) *Principal organic hazardous constituents (POHCs).* (i) You must treat the POHCs in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) *Significant figures.* The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

(e) *Elective standards for area sources.* Area sources as defined under §63.2 are subject to the standards for cadmium and lead, the standards for arsenic, beryllium, and chromium, the standards for hydrogen chloride and chlorine, and the standards for particulate matter under this section if they elect under §266.100(b)(3) of this chapter to comply with those standards in lieu of the standards under 40 CFR 266.105, 266.106, and 266.107 to control those pollutants.

**[63.1219]**

**What are the replacement standards for hazardous waste incinerators?**

(a) *Emission limits for existing sources.* You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans:

(i) For incinerators equipped with either a waste heat boiler or dry air pollution control system, either:

(A) Emissions in excess of 0.20 ng TEQ/dscm, corrected to 7 percent oxygen; or

(B) Emissions in excess of 0.40 ng TEQ/dscm, corrected to 7 percent oxygen, provided that the combustion gas temperature at the inlet to the initial particulate matter control device is 400 EF or lower based on the average of the test run average temperatures. (For purposes of compliance, operation of a wet particulate matter control device is presumed to meet the 400 EF or lower requirement);

(ii) Emissions in excess of 0.40 ng TEQ/dscm, corrected to 7 percent oxygen, for incinerators not equipped with either a waste heat boiler or dry air pollution control system;

(iii) A source equipped with a wet air pollution control system followed by a dry air pollution control system is not considered to be a dry air pollution control system, and a source equipped with a dry air pollution control system followed by a wet air pollution control system is considered to be a dry air pollution control system for purposes of this standard;

(2) Mercury in excess of 130 µg/dscm, corrected to 7 percent oxygen;

(3) Cadmium and lead in excess of 230 µg/dscm, combined emissions, corrected to 7 percent oxygen;

(4) Arsenic, beryllium, and chromium in excess of 92 µg/dscm, combined emissions, corrected to 7 percent oxygen;

(5) For carbon monoxide and hydrocarbons, either:

(i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (a)(5)(ii) of this section, you must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(ii) Hydrocarbons in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) Hydrogen chloride and chlorine gas (total chlorine) in excess of 32 parts per million by volume, combined emissions, expressed as a chloride (Cl(!-)) equivalent, dry basis and corrected to 7 percent oxygen; and

(7) Except as provided by paragraph (e) of this section, particulate matter in excess of 0.013 gr/dscf corrected to 7 percent oxygen.

(b) *Emission limits for new sources.* You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1)(i) Dioxins and furans in excess of 0.11 ng TEQ/dscm corrected to 7 percent oxygen for incinerators equipped with either a waste heat boiler or dry air pollution control system; or

(ii) Dioxins and furans in excess of 0.20 ng TEQ/dscm corrected to 7 percent oxygen for sources not equipped with either a waste heat boiler or dry air pollution control system;

(iii) A source equipped with a wet air pollution control system followed by a dry air pollution control system is not considered to be a dry air pollution control system, and a source equipped with a dry air pollution control system followed by a wet air pollution control system is considered to be a dry air pollution control system for purposes of this standard;

(2) Mercury in excess of 8.1 µg/dscm, corrected to 7 percent oxygen;

(3) Cadmium and lead in excess of 10 µg/dscm, combined emissions, corrected to 7 percent oxygen;

(4) Arsenic, beryllium, and chromium in excess of 23 µg/dscm, combined emissions, corrected to 7 percent oxygen;

(5) For carbon monoxide and hydrocarbons, either:

(i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (b)(5)(ii) of this section, you must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(ii) Hydrocarbons in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) Hydrogen chloride and chlorine gas in excess of 21 parts per million by volume, combined emissions, expressed as a chloride (Cl(!-)) equivalent, dry basis and corrected to 7 percent oxygen; and

(7) Except as provided by paragraph (e) of this section, particulate matter in excess of 0.0015 gr/dscf, corrected to 7 percent oxygen.

(c) *Destruction and removal efficiency (DRE) standard*. (1) *99.99% DRE*. Except as provided in paragraph (c)(2) of this section, you must achieve a destruction and removal efficiency (DRE) of 99.99% for each principle organic hazardous constituent (POHC) designated under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$DRE = [1 - (W_{out} / W_{in})] \times 100\%$$

Where:

$W_{in}$ = mass feedrate of one POHC in a waste feedstream; and

$W_{out}$ = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) *99.9999% DRE*. If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see §261.31 of this chapter), you must achieve a DRE of 99.9999% for each POHC that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-*p*-dioxins and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) *Principal organic hazardous constituent (POHC)*. (i) You must treat each POHC in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) *Significant figures*. The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

(e) *Alternative to the particulate matter standard*. (1). *General*. In lieu of complying with the particulate matter standards of this section, you may elect to comply with the following alternative metal emission control requirement:

(2) *Alternative metal emission control requirements for existing incinerators*. (i) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain cadmium, lead, and selenium in excess of 230 µg/dscm, combined emissions, corrected to 7 percent oxygen; and,

(ii) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel in excess of 92 µg/dscm, combined emissions, corrected to 7 percent oxygen.

(3) *Alternative metal emission control requirements for new incinerators*. (i) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain cadmium, lead, and selenium in excess of 10 µg/dscm, combined emissions, corrected to 7 percent oxygen; and,

(ii) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel in excess of 23 µg/dscm, combined emissions, corrected to 7 percent oxygen.

(4) *Operating limits*. Semivolatile and low volatile metal operating parameter limits must be established to ensure compliance with the alternative emission limitations described in paragraphs (e)(2) and (e)(3) of this section pursuant to §63.1209(n), except that semivolatile metal feedrate limits apply to lead, cadmium, and selenium, combined, and low volatile metal feedrate limits apply to arsenic, beryllium, chromium, antimony, cobalt, manganese, and nickel, combined.

**[63.1220]**

**What are the replacement standards for hazardous waste burning cement kilns?**

(a) *Emission and hazardous waste feed limits for existing sources*. You must not discharge or cause combustion gases to be emitted into the atmosphere or feed hazardous waste that contain:

(1) For dioxins and furans, either:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7 percent oxygen; or

(ii) Emissions in excess of 0.40 ng TEQ/dscm corrected to 7 percent oxygen provided that the combustion gas temperature at the inlet to the initial dry particulate matter control device is 400 EF or lower based on the average of the test run average temperatures;

(2) For mercury, both:

(i) An average as-fired concentration of mercury in all hazardous waste feedstreams in excess of 3.0 parts per million by weight; and

(ii) Emissions in excess of 120 µg/dscm, corrected to 7 percent oxygen; or

(iii) A hazardous waste feedrate corresponding to a maximum theoretical emission concentration (MTEC) in excess of 120 µg/dscm;

(3) For cadmium and lead, both:

(i) Emissions in excess of $7.6 \times 10^{1-4}$ lbs combined emissions of cadmium and lead attributable to the hazardous waste per million Btu heat input from the hazardous waste; and

(ii) Emissions in excess of 330 µg/dscm, combined emissions, corrected to 7 percent oxygen;

(4) For arsenic, beryllium, and chromium, both:

(i) Emissions in excess of $2.1 \times 10^{1-5}$ lbs combined emissions of arsenic, beryllium, and chromium attributable to the hazardous waste per million Btu heat input from the hazardous waste; and

(ii) Emissions in excess of 56 µg/dscm, combined emissions, corrected to 7 percent oxygen;

(5) *Carbon monoxide and hydrocarbons*. (i) For kilns equipped with a by-pass duct or midkiln gas sampling system, either:

(A) Carbon monoxide in the by-pass duct or mid-kiln gas sampling system in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (a)(5)(i)(B) of this section, you must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons in the by-pass duct or mid-kiln gas sampling system do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(B) Hydrocarbons in the by-pass duct or midkiln gas sampling system in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane;

(ii) For kilns not equipped with a by-pass duct or midkiln gas sampling system, either:

(A) Hydrocarbons in the main stack in excess of 20 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(B) Carbon monoxide in the main stack in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (a)(5)(ii)(A) of this section, you also must document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons in the main stack do not exceed 20 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane.

(6) Hydrogen chloride and chlorine gas in excess of 120 parts per million by volume, combined emissions, expressed as a chloride (Cl(-)) equivalent, dry basis, corrected to 7 percent oxygen; and

(7) For particulate matter, both:

(i) Emissions in excess of 0.028 gr/dscf corrected to 7 percent oxygen; and

(ii) Opacity greater than 20 percent, unless your source is equipped with a bag leak detection system under §63.1206(c)(8) or a particulate matter detection system under §63.1206(c)(9).

(b) *Emission and hazardous waste feed limits for new sources*. You must not discharge or cause combustion gases to be emitted into the atmosphere or feed hazardous waste that contain:

(1) For dioxins and furans, either:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7 percent oxygen; or

(ii) Emissions in excess of 0.40 ng TEQ/dscm corrected to 7 percent oxygen provided that the combustion gas temperature at the inlet to the initial dry particulate matter control device is 400 EF or lower based on the average of the test run average temperatures;

(2) For mercury, both:

(i) An average as-fired concentration of mercury in all hazardous waste feedstreams in excess of 1.9 parts per million by weight; and

(ii) Emissions in excess of 120 µg/dscm, corrected to 7 percent oxygen; or

(iii) A hazardous waste feedrate corresponding to a maximum theoretical emission concentration (MTEC) in excess of 120 µg/dscm;

(3) For cadmium and lead, both:

(i) Emissions in excess of 6.2 x 10-5 lbs combined emissions of cadmium and lead attributable to the hazardous waste per million Btu heat input from the hazardous waste; and

(ii) Emissions in excess of 180 µg/dscm, combined emissions, corrected to 7 percent oxygen;

(4) For arsenic, beryllium, and chromium, both:

(i) Emissions in excess of 1.5 x 10-5 lbs combined emissions of arsenic, beryllium, and chromium attributable to the hazardous waste per million Btu heat input from the hazardous waste; and

(ii) Emissions in excess of 54 µg/dscm, combined emissions, corrected to 7 percent oxygen;

(5) *Carbon monoxide and hydrocarbons*. (i) For kilns equipped with a by-pass duct or midkiln gas sampling system, carbon monoxide and hydrocarbons emissions are limited in both the bypass duct or midkiln gas sampling system and the main stack as follows:

(A) Emissions in the by-pass or midkiln gas sampling system are limited to either:

(*1*) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (b)(5)(i)(A)(*2*) of this section, you also must document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(*2*) Hydrocarbons in the by-pass duct or midkiln gas sampling system in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; and

(B) Hydrocarbons in the main stack are limited, if construction of the kiln commenced after April 19, 1996 at a plant site where a cement kiln (whether burning hazardous waste or not) did not previously exist, to 50 parts per million by volume, over a 30-day block average (monitored continuously with a continuous monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane.

(ii) For kilns not equipped with a by-pass duct or midkiln gas sampling system, hydrocarbons and carbon monoxide are limited in the main stack to either:

(A) Hydrocarbons not exceeding 20 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(B)(*1*) Carbon monoxide not exceeding 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen; and

(*2*) Hydrocarbons not exceeding 20 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane at any time during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7); and

(*3*) If construction of the kiln commenced after April 19, 1996 at a plant site where a cement kiln (whether burning hazardous waste or not) did not previously exist, hydrocarbons are limited to 50 parts per million by volume, over a 30-day block average (monitored continuously with a continuous monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane.

(6) Hydrogen chloride and chlorine gas in excess of 86 parts per million by volume, combined emissions, expressed as a chloride (Cl(-)) equivalent, dry basis and corrected to 7 percent oxygen; and

(7) For particulate matter, both:

(i) Emissions in excess of 0.0023 gr/dscf corrected to 7 percent oxygen; and

(ii) Opacity greater than 20 percent, unless your source is equipped with a bag leak detection system under §63.1206(c)(8) or a particulate matter detection system under §63.1206(c)(9).

(c) *Destruction and removal efficiency (DRE) standard*. (1) *99.99% DRE*. Except as provided in paragraph (c)(2) of this section, you must achieve a destruction and removal efficiency (DRE) of 99.99% for each principle organic hazardous constituent (POHC) designated under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$DRE = [1 - (W_{out}/W_{in})] \times 100\%$

Where:

$W_{in}$ = mass feedrate of one POHC in a waste feedstream; and

$W_{out}$ = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) *99.9999% DRE.* If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see §261.31 of this chapter), you must achieve a DRE of 99.9999% for each POHC that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-*p*-dioxins and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) *Principal organic hazardous constituent (POHC).* (i) You must treat each POHC in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) *Cement kilns with in-line kiln raw mills.* (1) *General.* (i) You must conduct performance testing when the raw mill is on-line and when the mill is off-line to demonstrate compliance with the emission standards, and you must establish separate operating parameter limits under §63.1209 for each mode of operation, except as provided by paragraphs (d)(1)(iv) and (d)(1)(v) of this section.

(ii) You must document in the operating record each time you change from one mode of operation to the alternate mode and begin complying with the operating parameter limits for that alternate mode of operation.

(iii) You must calculate rolling averages for operating parameter limits as provided by §63.1209(q)(2).

(iv) If your in-line kiln raw mill has dual stacks, you may assume that the dioxin/furan emission levels in the by-pass stack and the operating parameter limits determined during performance testing of the by-pass stack when the raw mill is off-line are the same as when the mill is on-line.

(v) In lieu of conducting a performance test to demonstrate compliance with the dioxin/furan emission standards for the mode of operation when the raw mill is on-line, you may specify in the performance test

workplan and Notification of Compliance the same operating parameter limits required under §63.1209(k) for the mode of operation when the raw mill is on-line as you establish during performance testing for the mode of operation when the raw mill is off-line.

(2) *Emissions averaging.* You may comply with the mercury, semivolatile metal, low volatile metal, and hydrogen chloride/chlorine gas emission standards on a time-weighted average basis under the following procedures:

(i) *Averaging methodology.* You must calculate the time-weighted average emission concentration with the following equation:

$C_{total}$ = {Cmill-off × (Tmill-off/(Tmill-off + Tmill-on))} + {Cmill-on × (Tmill-on/(Tmill-off + Tmill-on))}

Where:

$C_{total}$ = time-weighted average concentration of a regulated constituent considering both raw mill on time and off time;

Cmill-off = average performance test concentration of regulated constituent with the raw mill off-line;

Cmill-on = average performance test concentration of regulated constituent with the raw mill on-line;

Tmill-off = time when kiln gases are not routed through the raw mill; and

Tmill-on = time when kiln gases are routed through the raw mill.

(ii) *Compliance.* (A) If you use this emission averaging provision, you must document in the operating record compliance with the emission standards on an annual basis by using the equation provided by paragraph (d)(2) of this section.

(B) Compliance is based on one-year block averages beginning on the day you submit the initial notification of compliance.

(iii) *Notification.* (A) If you elect to document compliance with one or more emission standards using this emission averaging provision, you must notify the Administrator in the initial comprehensive performance test plan submitted under §63.1207(e).

(B) You must include historical raw mill operation data in the performance test plan to estimate future raw mill down-time and document in the performance test plan that estimated emissions and estimated raw mill down-time will not result in an exceedance of an emission standard on an annual basis.

(C) You must document in the notification of compliance submitted under §63.1207(j) that an emission standard will not be exceeded based on the documented emissions from the performance test and predicted raw mill down-time.

(e) *Preheater or preheater/precalciner kilns with dual stacks.* (1) *General.* You must conduct performance testing on each stack to demonstrate compliance with the emission standards, and you must establish operating parameter limits under §63.1209 for each stack, except as provided by paragraph (d)(1)(iv) of this section for dioxin/furan emissions testing and operating parameter limits for the by-pass stack of in-line raw mills.

(2) *Emissions averaging.* You may comply with the mercury, semivolatile metal, low volatile metal, and hydrogen chloride/chlorine gas emission standards specified in this section on a gas flowrate-weighted average basis under the following procedures:

(i) *Averaging methodology.* You must calculate the gas flowrate-weighted average emission concentration using the following equation:

$$C_{tot} = \{C_{main} \times (Q_{main}/(Q_{main} + Q_{bypass}))\} + \{C_{bypass} \times (Q_{bypass}/(Q_{main} + Q_{bypass}))\}$$

Where:

$C_{tot}$ = gas flowrate-weighted average concentration of the regulated constituent;

$C_{main}$ = average performance test concentration demonstrated in the main stack;

$C_{bypass}$ = average performance test concentration demonstrated in the bypass stack;

$Q_{main}$ = volumetric flowrate of main stack effluent gas; and

$Q_{bypass}$ = volumetric flowrate of bypass effluent gas.

(ii) *Compliance.* (A) You must demonstrate compliance with the emission standard(s) using the emission concentrations determined from the performance tests and the equation provided by paragraph (e)(1) of this section; and

(B) You must develop operating parameter limits for bypass stack and main stack flowrates that ensure the emission concentrations calculated with the equation in paragraph (e)(1) of this section do not exceed the emission standards on a 12-hour rolling average basis. You must include these flowrate limits in the Notification of Compliance.

(iii) *Notification*. If you elect to document compliance under this emissions averaging provision, you must:

(A) Notify the Administrator in the initial comprehensive performance test plan submitted under §63.1207(e). The performance test plan must include, at a minimum, information describing the flowrate limits established under paragraph (e)(2)(ii)(B) of this section; and

(B) Document in the Notification of Compliance submitted under §63.1207(j) the demonstrated gas flowrate-weighted average emissions that you calculate with the equation provided by paragraph (e)(2) of this section.

(f) *Significant figures*. The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

(g) [Reserved]

(h) When you comply with the particulate matter requirements of paragraphs (a)(7) or (b)(7) of this section, you are exempt from the New Source Performance Standard for particulate matter and opacity under §60.60 of this chapter.

**[63.1221]**

**What are the replacement standards for hazardous waste burning lightweight aggregate kilns?**

(a) *Emission and hazardous waste feed limits for existing sources*. You must not discharge or cause combustion gases to be emitted into the atmosphere or feed hazardous waste that contain:

(1) For dioxins and furans, either:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7 percent oxygen; or

(ii) Rapid quench of the combustion gas temperature at the exit of the (last) combustion chamber (or exit of any waste heat recovery system that immediately follows the last combustion chamber) to 400 EF or lower based on the average of the test run average temperatures. You must also notify in writing the RCRA authority that you are complying with this option;

(2) For mercury, either:

(i) Emissions in excess of 120 µg/dscm, corrected to 7 percent oxygen; or

(ii) A hazardous waste feedrate corresponding to a maximum theoretical emission concentration (MTEC) in excess of 120 µg/dscm;

(3) For cadmium and lead, both:

(i) Emissions in excess of $3.0 \times 10^{1-4}$ lbs combined emissions of cadmium and lead attributable to the hazardous waste per million Btu heat input from the hazardous waste; and

(ii) Emissions in excess of 250 µg/dscm, combined emissions, corrected to 7 percent oxygen;

(4) For arsenic, beryllium, and chromium, both:

(i) In excess of $9.5 \times 10^{1-5}$ lbs combined emissions of arsenic, beryllium, and chromium attributable to the hazardous waste per million Btu heat input from the hazardous waste;

(ii) Emissions in excess of 110 µg/dscm, combined emissions, corrected to 7 percent oxygen;

(5) *Carbon monoxide and hydrocarbons*. (i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (a)(5)(ii) of this section, you also must document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 20 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(ii) Hydrocarbons in excess of 20 parts per million by volume, over an hourly rolling average, dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) Hydrogen chloride and chlorine gas in excess of 600 parts per million by volume, combined emissions, expressed as a chloride (Cl(-)) equivalent, dry basis and corrected to 7 percent oxygen; and

(7) Particulate matter emissions in excess of 0.025 gr/dscf, corrected to 7 percent oxygen.

(b) *Emission and hazardous waste feed limits for new sources*. You must not discharge or cause combustion gases to be emitted into the atmosphere or feed hazardous waste that contain:

(1) For dioxins and furans, either:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7 percent oxygen; or

(ii) Rapid quench of the combustion gas temperature at the exit of the (last) combustion chamber (or exit of any waste heat recovery system that immediately follows the last combustion chamber) to 400 EF or lower based on the average of the test run average temperatures. You must also notify in writing the RCRA authority that you are complying with this option;

(2) For mercury, either:

(i) Emissions in excess of 120 µg/dscm, corrected to 7 percent oxygen; or

(ii) A hazardous waste feedrate corresponding to a maximum theoretical emission concentration (MTEC) in excess of 120 µg/dscm;

(3) For cadmium and lead, both:

(i) Emissions in excess of $3.7 \times 10^{1-5}$ lbs combined emissions of cadmium and lead attributable to the hazardous waste per million Btu heat input from the hazardous waste; and

(ii) Emissions in excess of 43 µg/dscm, combined emissions, corrected to 7 percent oxygen;

(4) For arsenic, beryllium, and chromium, both:

(i) In excess of $3.3 \times 10^{1-5}$ lbs combined emissions of arsenic, beryllium, and chromium attributable to the hazardous waste per million Btu heat input from the hazardous waste;

(ii) Emissions in excess of 110 µg/dscm, combined emissions, corrected to 7 percent oxygen;

(5) *Carbon monoxide and hydrocarbons*. (i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (b)(5)(ii) of this section, you also must document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 20 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(ii) Hydrocarbons in excess of 20 parts per million by volume, over an hourly rolling average, dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) Hydrogen chloride and chlorine gas in excess of 600 parts per million by volume, combined emissions, expressed as a chloride (Cl(-)) equivalent, dry basis and corrected to 7 percent oxygen; and

(7) Particulate matter emissions in excess of 0.0098 gr/dscf corrected to 7 percent oxygen.

(c) *Destruction and removal efficiency (DRE) standard*. (1) *99.99% DRE*. Except as provided in paragraph (c)(2) of this section, you must achieve a destruction and removal efficiency (DRE) of 99.99% for each principal organic hazardous constituent (POHC) designated under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$DRE = [1 - (W_{out} / Win)] \times 100\%$$

Where:

$W_{in}$ = mass feedrate of one POHC in a waste feedstream; and

$W_{out}$ = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) *99.9999% DRE*. If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see §261.31 of this chapter), you must achieve a destruction and removal efficiency (DRE) of 99.9999% for each POHC that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-dioxins and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to burn hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) *Principal organic hazardous constituents (POHCs)*. (i) You must treat each POHC in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) *Significant figures*. The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

**Table 1 to Subpart EEE of Part 63—General Provisions Applicable to Subpart EEE**

| Reference | Applies to subpart EEE | Explanation |
|---|---|---|
| 63.1 | Yes. | |
| 63.2 | Yes. | |
| 63.3 | Yes. | |
| 63.4 | Yes. | |
| 63.5 | Yes. | |
| 63.6(a), (b), (c), (d), and (e) | Yes. | |
| 63.6(f) | Yes. | Except that the performance test requirements of Sec. 63.1207 apply instead of § 63.6(f)(2)(iii)(B). |
| 63.6(g) and (h) | Yes. | |
| 63.6(i) | Yes. | Section 63.1213 specifies that the compliance date may also be extended for inability to install necessary emission control equipment by the compliance date because of implementation of pollution prevention or waste minimization controls. |
| 63.6(j) | Yes. | |

| | | |
|---|---|---|
| 63.7(a) | Yes | Except § 63.1207(e)(3) allows you to petition the Administrator under § 63.7(h) to provide an extension of time to conduct a performance test. |
| 63.7(b) | Yes | Except § 63.1207(e) requires you to submit the site-specific test plan for approval at least one year before the comprehensive performance test is scheduled to begin. |
| 63.7(c) | Yes | Except § 63.1207(e) requires you to submit the site-specific test plan (including the quality assurance provisions under § 63.7(c)) for approval at least one year before the comprehensive performance test is scheduled to begin. |
| 63.7(d) | Yes. | |
| 63.7(e) | Yes | Except § 63.1207 prescribes operations during performance testing and § 63.1209 specifies operating limits that will be established during performance testing (such that testing is likely to be representative of the extreme range of normal performance). |
| 63.7(f) | Yes. | |
| 63.7(g) | Yes | Except § 63.1207(j) requiring that you submit the results of the performance test (and the notification of compliance) within 90 days of completing the test, unless the Administrator grants a time extension, applies instead of § 63.7(g)(1). |
| 63.7(h) | Yes | Except § 63.1207(c)(2) allows data in lieu of the initial comprehensive performance test, and § 63.1207(m) provides a waiver of certain performance tests. You must submit requests for these waivers with the site-specific test plan. |
| 63.8(a) and (b) | Yes. | |
| 63.8(c) | Yes | Except: (1) § 63.1211(c) that requires you to install, calibrate, and operate CMS by the compliance date applies instead of § 63.8(c)(3); and (2) the performance specifications for CO, HC, and O2 CEMS in subpart B, of this chapter requiring that the detectors measure the sample concentration at least once every 15 seconds for calculating an average emission level once every 60 seconds apply instead of § 63.8(c)(4)(ii). |
| 63.8(d) | Yes. | |
| 63.8(e) | Yes | Except § 63.1207(e) requiring you to submit the site-specific comprehensive performance test plan and the CMS performance evaluation test plan for approval at least one |

| | | |
|---|---|---|
| | | year prior to the planned test date applies instead of §§ 63.8(e)(2) and (3)(iii). |
| 63.8(f) and (g)..... | Yes. | |
| 63.9(a)..... | Yes. | |
| 63.9(b)..... | Yes..... | Note: Section 63.9(b)(1)(ii) pertains to notification requirements for area sources that become a major source, and § 63.9(b)(2)(v) requires a major source determination. Although area sources are subject to all provisions of this subpart (Subpart EEE), these sections nonetheless apply because the major source determination may affect the applicability of part 63 standards or title V permit requirements to other sources (i.e., other than a hazardous waste combustor) of hazardous air pollutants at the facility. |
| 63.9(c) and (d)..... | Yes. | |
| 63.9(e)..... | Yes..... | Except § 63.1207(e) which requires you to submit the comprehensive performance test plan for approval one year prior to the planned performance test date applies instead of § 63.9(e). |
| 63.9(f)..... | Yes..... | Section 63.9(f) applies if you are allowed under § 63.1209(a)(1)(v) to use visible determination of opacity for compliance in lieu of a COMS. |
| 63.9(g)..... | Yes..... | Except § 63.9(g)(2) pertaining to COMS does not apply. |
| 63.9(h)..... | Yes..... | Except § 63.1207(j) requiring you to submit the notification of compliance within 90 days of completing a performance test unless the Administrator grants a time extension applies instead of § 63.9(h)(2)(iii). Note: Even though area sources are subject to this subpart, the major source determination required by § 63.9(h)(2)(i)(E) is applicable to hazardous waste combustors for the reasons discussed above. |
| 63.9(i) and (j)..... | Yes. | |
| 63.10..... | Yes..... | Except reports of performance test results required under § 63.10(d)(2) may be submitted up to 90 days after completion of the test. |
| 63.11..... | No. | |
| 63.12-63.15..... | Yes. | |

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## Appendix to Subpart EEE of Part 63—Quality Assurance Procedures for Continuous Emissions Monitors Used for Hazardous Waste Combustors

*1. Applicability and Principle*

1.1 Applicability. These quality assurance requirements are used to evaluate the effectiveness of quality control (QC) and quality assurance (QA) procedures and the quality of data produced by continuous emission monitoring systems (CEMS) that are used for determining compliance with the emission standards on a continuous basis as specified in the applicable regulation. The QA procedures specified by these requirements represent the minimum requirements necessary for the control and assessment of the quality of CEMS data used to demonstrate compliance with the emission standards provided under this subpart EEE of part 63. Owners and operators must meet these minimum requirements and are encouraged to develop and implement a more extensive QA program. These requirements supersede those found in part 60, Appendix F, of this chapter. Appendix F does not apply to hazardous waste-burning devices.

1.2 Principle. The QA procedures consist of two distinct and equally important functions. One function is the assessment of the quality of the CEMS data by estimating accuracy. The other function is the control and improvement of the quality of the CEMS data by implementing QC policies and corrective actions. These two functions form a control loop. When the assessment function indicates that the data quality is inadequate, the source must immediately stop burning hazardous waste. The CEM data control effort must be increased until the data quality is acceptable before hazardous waste burning can resume.

a. In order to provide uniformity in the assessment and reporting of data quality, this procedure explicitly specifies the assessment methods for response drift and accuracy. The methods are based on procedures included in the applicable performance specifications provided in appendix B to part 60 of this chapter. These procedures also require the analysis of the EPA audit samples concurrent with certain reference method (RM) analyses as specified in the applicable RM's.

b. Because the control and corrective action function encompasses a variety of policies, specifications, standards, and corrective measures, this procedure treats QC requirements in general terms to allow each source owner or operator to develop a QC system that is most effective and efficient for the circumstances.

*2. Definitions*

2.1 *Continuous Emission Monitoring System (CEMS).* The total equipment required for the determination of a pollutant concentration. The system consists of the following major subsystems:

2.1.1 *Sample Interface.* That portion of the CEMS used for one or more of the following: sample acquisition, sample transport, and sample conditioning, or protection of the monitor from the effects of the stack effluent.

2.1.2 *Pollutant Analyzer.* That portion of the CEMS that senses the pollutant concentration and generates a proportional output.

2.1.3 *Diluent Analyzer.* That portion of the CEMS that senses the diluent gas (O2) and generates an output proportional to the gas concentration.

2.1.4 *Data Recorder.* That portion of the CEMS that provides a permanent record of the analyzer output. The data recorder may provide automatic data reduction and CEMS control capabilities.

2.2 *Relative Accuracy (RA).* The absolute mean difference between the pollutant concentration determined by the CEMS and the value determined by the reference method (RM) plus the 2.5 percent error

confidence coefficient of a series of test divided by the mean of the RM tests or the applicable emission limit.

2.3 *Calibration Drift (CD).* The difference in the CEMS output readings from the established reference value after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.

2.4 *Zero Drift (ZD).* The difference in CEMS output readings at the zero pollutant level after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.

2.5 *Calibration Standard.* Calibration standards produce a known and unchanging response when presented to the pollutant analyzer portion of the CEMS, and are used to calibrate the drift or response of the analyzer.

2.6 *Relative Accuracy Test Audit (RATA).* Comparison of CEMS measurements to reference method measurements in order to evaluate relative accuracy following procedures and specification given in the appropriate performance specification.

2.7 *Absolute Calibration Audit (ACA).* Equivalent to calibration error (CE) test defined in the appropriate performance specification using NIST traceable calibration standards to challenge the CEMS and assess accuracy.

2.8 *Rolling Average.* The average emissions, based on some (specified) time period, calculated every minute from a one-minute average of four measurements taken at 15-second intervals.

*3. QA/QC Requirements*

3.1 QC Requirements. a. Each owner or operator must develop and implement a QC program. At a minimum, each QC program must include written procedures describing in detail complete, step-by-step procedures and operations for the following activities.

1. Checks for component failures, leaks, and other abnormal conditions.

2. Calibration of CEMS.

3. CD determination and adjustment of CEMS.

4. Integration of CEMS with the automatic waste feed cutoff (AWFCO) system.

5. Preventive Maintenance of CEMS (including spare parts inventory).

6. Data recording, calculations, and reporting.

7. Checks of record keeping.

8. Accuracy audit procedures, including sampling and analysis methods.

9. Program of corrective action for malfunctioning CEMS.

10. Operator training and certification.

11. Maintaining and ensuring current certification or naming of cylinder gasses, metal solutions, and particulate samples used for audit and accuracy tests, daily checks, and calibrations.

b. Whenever excessive inaccuracies occur for two consecutive quarters, the current written procedures must be revised or the CEMS modified or replaced to correct the deficiency causing the excessive

inaccuracies. These written procedures must be kept on record and available for inspection by the enforcement agency.

3.2 QA Requirements. Each source owner or operator must develop and implement a QA plan that includes, at a minimum, the following.

1. QA responsibilities (including maintaining records, preparing reports, reviewing reports).

2. Schedules for the daily checks, periodic audits, and preventive maintenance.

3. Check lists and data sheets.

4. Preventive maintenance procedures.

5. Description of the media, format, and location of all records and reports.

6. Provisions for a review of the CEMS data at least once a year. Based on the results of the review, the owner or operator must revise or update the QA plan, if necessary.

*4. CD and ZD Assessment and Daily System Audit*

4.1 *CD and ZD Requirement.* Owners and operators must check, record, and quantify the ZD and the CD at least once daily (approximately 24 hours) in accordance with the method prescribed by the manufacturer. The CEMS calibration must, at a minimum, be adjusted whenever the daily ZD or CD exceeds the limits in the Performance Specifications. If, on any given ZD and/or CD check the ZD and/or CD exceed(s) two times the limits in the Performance Specifications, or if the cumulative adjustment to the ZD and/or CD (see Section 4.2) exceed(s) three times the limits in the Performance Specifications, hazardous waste burning must immediately cease and the CEMS must be serviced and recalibrated. Hazardous waste burning cannot resume until the owner or operator documents that the CEMS is in compliance with the Performance Specifications by carrying out an ACA.

4.2 *Recording Requirements for Automatic ZD and CD Adjusting Monitors.* Monitors that automatically adjust the data to the corrected calibration values must record the unadjusted concentration measurement prior to resetting the calibration, if performed, or record the amount of the adjustment.

4.3 *Daily System Audit.* The audit must include a review of the calibration check data, an inspection of the recording system, an inspection of the control panel warning lights, and an inspection of the sample transport and interface system (e.g., flowmeters, filters, etc.) as appropriate.

4.4 *Data Recording and Reporting.* All measurements from the CEMS must be retained in the operating record for at least 5 years.

*5. Performance Evaluation for CO, $O_2$, and HC CEMS*

Carbon Monoxide (CO), Oxygen ($O_2$), and Hydrocarbon (HC) CEMS. An Absolute Calibration Audit (ACA) must be conducted quarterly, and a Relative Accuracy Test Audit (RATA) (if applicable, see sections 5.1 and 5.2) must be conducted yearly. An Interference Response Tests must be performed whenever an ACA or a RATA is conducted. When a performance test is also required under §63.1207 to document compliance with emission standards, the RATA must coincide with the performance test. The audits must be conducted as follows.

5.1 *Relative Accuracy Test Audit (RATA).* This requirement applies to $O_2$ and CO CEMS. The RATA must be conducted at least yearly. Conduct the RATA as described in the RA test procedure (or alternate procedures section) described in the applicable Performance Specifications. In addition, analyze the

appropriate performance audit samples received from the EPA as described in the applicable sampling methods.

5.2 *Absolute Calibration Audit (ACA).* The ACA must be conducted at least quarterly except in a quarter when a RATA (if applicable, see section 5.1) is conducted instead. Conduct an ACA as described in the calibration error (CE) test procedure described in the applicable Performance Specifications.

5.3 *Interference Response Test.* The interference response test must be conducted whenever an ACA or RATA is conducted. Conduct an interference response test as described in the applicable Performance Specifications.

5.4 *Excessive Audit Inaccuracy.* If the RA from the RATA or the CE from the ACA exceeds the criteria in the applicable Performance Specifications, hazardous waste burning must cease immediately. Hazardous waste burning cannot resume until the owner or operator takes corrective measures and audit the CEMS with a RATA to document that the CEMS is operating within the specifications.

*6. Other Requirements*

6.1 *Performance Specifications.* CEMS used by owners and operators of HWCs must comply with the following performance specifications in appendix B to part 60 of this chapter:

Table I: Performance Specifications for CEMS

| CEMS | Performance specification |
|---|---|
| Carbon monoxide..... | 4B |
| Oxygen..... | 4B |
| Total hydrocarbons..... | 8A |

6.2 *Downtime due to Calibration.* Facilities may continue to burn hazardous waste for a maximum of 20 minutes while calibrating the CEMS. If all CEMS are calibrated at once, the facility must have twenty minutes to calibrate all the CEMS. If CEMS are calibrated individually, the facility must have twenty minutes to calibrate each CEMS. If the CEMS are calibrated individually, other CEMS must be operational while the individual CEMS is being calibrated.

6.3 Span of the CEMS.

6.3.1 *CO CEMS.* The CO CEM must have two ranges, a low range with a span of 200 ppmv and a high range with a span of 3000 ppmv at an oxygen correction factor of 1. A one-range CEM may be used, but it must meet the performance specifications for the low range in the specified span of the low range.

6.3.2 $O_{2\ CEMS}$. The $O_2$ CEM must have a span of 25 percent. The span may be higher than 25 percent if the $O_2$ concentration at the sampling point is greater than 25 percent.

6.3.3 *HC CEMS.* The HC CEM must have a span of 100 ppmv, expressed as propane, at an oxygen correction factor of 1.

6.3.4 *CEMS Span Values.* When the Oxygen Correction Factor is Greater than 2. When an owner or operator installs a CEMS at a location of high ambient air dilution, *i.e.,* where the maximum oxygen correction factor as determined by the permitting agency is greater than 2, the owner or operator must

install a CEM with a lower span(s), proportionate to the larger oxygen correction factor, than those specified above.

6.3.5 *Use of Alternative Spans.* Owner or operators may request approval to use alternative spans and ranges to those specified. Alternate spans must be approved in writing in advance by the Administrator. In considering approval of alternative spans and ranges, the Administrator will consider that measurements beyond the span will be recorded as values at the maximum span for purposes of calculating rolling averages.

6.3.6 *Documentation of Span Values.* The span value must be documented by the CEMS manufacturer with laboratory data.

6.4.1 *Moisture Correction.* Method 4 of appendix A, part 60 of this chapter, must be used to determine moisture content of the stack gasses.

6.4.2 *Oxygen Correction Factor.* Measured pollutant levels must be corrected for the amount of oxygen in the stack according to the following formula:

$$P_c = P_m \times 14/(E - Y)$$

Where:

$P_c$ = concentration of the pollutant or standard corrected to 7 percent oxygen, dry basis;

$P_m$ = measured concentration of the pollutant, dry basis;

E = volume fraction of oxygen in the combustion air fed into the device, on a dry basis (normally 21 percent or 0.21 if only air is fed);

Y = measured fraction of oxygen on a dry basis at the sampling point.

The oxygen correction factor is:

$$OCF = 14/(E - Y)$$

6.4.3 *Temperature Correction.* Correction values for temperature are obtainable from standard reference materials.

6.5 *Rolling Average.* A rolling average is the arithmetic average of all one-minute averages over the averaging period.

6.5.1 *One-Minute Average for CO and HHC CEMS.* One-minute averages are the arithmetic average of the four most recent 15-second observations and must be calculated using the following equation:

$$\bar{c} = \sum_{i=1}^{4} \frac{c_i}{4}$$

Where:

c = the one minute average

$c_i$ = a fifteen-second observation from the CEM

Fifteen second observations must not be rounded or smoothed. Fifteen-second observations may be disregarded only as a result of a failure in the CEMS and allowed in the source's quality assurance plan at the time of the CEMS failure. One-minute averages must not be rounded, smoothed, or disregarded.

6.5.2 Ten Minute Rolling Average Equation. The ten minute rolling average must be calculated using the following equation:

$$C_{RA} = \sum_{i=1}^{10} \frac{\overline{c}_i}{10}$$

Where:

$C_{RA}$ = The concentration of the standard, expressed as a rolling average

$c_i$ = a one minute average

6.5.3 *Hourly Rolling Average Equation for CO and THC CEMS and Operating Parameter Limits.* The rolling average, based on a specific number integer of hours, must be calculated using the following equation:

$$C_{RA} = \sum_{i=1}^{60} \frac{\overline{c}_i}{60}$$

Where:

$c_{RA}$ = The concentration of the standard, expressed as a rolling average

$c_i$ = a one minute average

6.5.4 Averaging Periods for CEMS other than CO and THC. The averaging period for CEMS other than CO and THC CEMS must be calculated as a rolling average of all one-hour values over the averaging period. An hourly average is comprised of 4 measurements taken at equally spaced time intervals, or at most every 15 minutes. Fewer than 4 measurements might be available within an hour for reasons such as facility downtime or CEMS calibration. If at least two measurements (30 minutes of data) are available, an hourly average must be calculated. The *n*-hour rolling average is calculated by averaging the *n* most recent hourly averages.

6.6 Units of the Standards for the Purposes of Recording and Reporting Emissions. Emissions must be recorded and reported expressed after correcting for oxygen, temperature, and moisture. Emissions must be reported in metric, but may also be reported in the English system of units, at 7 percent oxygen, 20 EC, and on a dry basis.

6.7 Rounding and Significant Figures. Emissions must be rounded to two significant figures using ASTM procedure E–29–90 or its successor. Rounding must be avoided prior to rounding for the reported value.

*7. Bibliography*

1. 40 CFR part 60, appendix F, "Quality Assurance Procedures: Procedure 1. Quality Assurance Requirements for Gas continuous Emission Monitoring Systems Used For Compliance Determination".

## II. Requirements of 40 CFR Part 63, Subpart JJJ

**[40 CFR 63.1310]**

**Applicability and designation of affected sources.**

(a) Definition of affect*ed source*. The provisions of this subpart apply to each affected source. Affected sources are described in paragraphs (a)(1) through (a)(4) of this section.

(1) An affected source is either an existing affected source or a new affected source. Existing affected source is defined in paragraph (a)(2) of this section, and new affected source is defined in paragraph (a)(3) of this section.

(2) An existing affected source is defined as each group of one or more thermoplastic product process units (TPPU) and associated equipment, as listed in paragraph (a)(4) of this section that is not part of a new affected source, as defined in paragraph (a)(3) of this section, that is manufacturing the same primary product, and that is located at a plant site that is a major source.

(3) A new affected source is defined by the criteria in paragraph (a)(3)(i), (a)(3)(ii), or (a)(3)(iii) of this section. The situation described in paragraph (a)(3)(i) of this section is distinct from those situations described in paragraphs (a)(3)(ii) and (a)(3)(iii) of this section and from any situation described in paragraph (i) of this section.

(i) At a site without HAP emission points before March 29, 1995 (i.e., a "greenfield" site), each group of one or more TPPU and associated equipment, as listed in paragraph (a)(4) of this section, that is manufacturing the same primary product and that is part of a major source on which construction commenced after March 29, 1995;

(ii) A group of one or more TPPU meeting the criteria in paragraph (i)(1)(i) of this section; or

(iii) A reconstructed affected source meeting the criteria in paragraph (i)(2)(i) of this section.

(4) *Emission points and equipment*. The affected source also includes the emission points and equipment specified in paragraphs (a)(4)(i) through (a)(4)(vi) of this section that are associated with each applicable group of one or more TPPU constituting an affected source.

(i) Each waste management unit.

(ii) Maintenance wastewater.

(iii) Each heat exchange system.

(iv) Each process contact cooling tower used in the manufacture of PET that is associated with a new affected source.

(v) Each process contact cooling tower used in the manufacture of PET using a continuous terephthalic acid high viscosity multiple end finisher process that is associated with an existing affected source.

(vi) Equipment required by, or utilized as a method of compliance with, this subpart which may include control devices and recovery devices.

(5) TPPUs and associated equipment, as listed in paragraph (a)(4) of this section, that are located at plant sites that are not major sources are neither affected sources nor part of an affected source.

(b) *TPPUs without organic HAP.* The owner or operator of a TPPU that is part of an affected source, as defined in paragraph (a) of this section, but that does not use or manufacture any organic HAP shall comply with the requirements of either paragraph (b)(1) or (b)(2) of this section. Such a TPPU is not subject to any other provisions of this subpart and is not required to comply with the provisions of subpart A of this part.

(1) Retain information, data, and analyses used to document the basis for the determination that the TPPU does not use or manufacture any organic HAP. Types of information that could document this determination include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge.

(2) When requested by the Administrator, demonstrate that the TPPU does not use or manufacture any organic HAP.

(c) *Emission points not subject to the provisions of this subpart*. The affected source includes the emission points listed in paragraphs (c)(1) through (c)(9) of this section, but these emission points are not subject to the requirements of this subpart or to the provisions of subpart A of this part.

(1) Equipment that does not contain organic HAP and is located within a TPPU that is part of an affected source;

(2) Stormwater from segregated sewers;

(3) Water from fire-fighting and deluge systems in segregated sewers;

(4) Spills;

(5) Water from safety showers;

(6) Water from testing of deluge systems;

(7) Water from testing of firefighting systems;

(8) Vessels and equipment storing and/or handling material that contain no organic HAP and/or organic HAP as impurities only; and

(9) Equipment that is intended to operate in organic HAP service for less than 300 hours during the calendar year.

(d) *Processes exempted from the affected source*. The processes specified in paragraphs (d)(1) through (d)(5) of this section are exempted from the affected source:

(1) Research and development facilities;

(2) Polymerization processes occurring in a mold;

(3) Processes which manufacture binder systems containing a thermoplastic product for paints, coatings, or adhesives;

(4) Finishing processes including equipment such as compounding units, spinning units, drawing units, extruding units, and other finishing steps; and

(5) Solid state polymerization processes.

(e) *Applicability determination of nonthermoplastic equipment included within the boundaries of a TPPU*. If a polymer that is not a thermoplastic product is produced within the equipment (i.e., collocated) making up a TPPU and at least 50 percent of that polymer is used in the production of a thermoplastic product manufactured by the same TPPU, then the unit operations involved in the production of that polymer are considered part of the TPPU and are subject to this subpart, with the following exception. Any emission points from such unit operations that are subject to another subpart of this part with an effective date prior to September 5, 1996 shall remain subject to that other subpart of this part and are not subject to this subpart.

(f) *Primary product determination and applicability*. An owner or operator of a process unit that produces or plans to produce a thermoplastic product shall determine if the process unit is subject to this subpart in accordance with this paragraph. The owner or operator shall initially determine whether a process unit is designated as a TPPU and subject to the provisions of this subpart in accordance with either paragraph (f)(1) or (f)(2) of this section. The owner or operator of a flexible operation unit that was not initially designated as a TPPU, but in which a thermoplastic product is produced, shall conduct an annual re-determination of the applicability of this subpart in accordance with paragraph (f)(3) of this section. Owners or operators that anticipate the production of a thermoplastic product in a process unit that was not initially designated as a TPPU, and in which no thermoplastic products are currently produced, shall determine if the process unit is subject to this subpart in accordance with paragraph (f)(4) of this section. Paragraphs (f)(3) and (f)(5) through (f)(7) of this section discuss compliance only for flexible operation units. Other paragraphs apply to all process units, including flexible operation units, unless otherwise noted. Paragraph (f)(8) of this section contains reporting requirements associated with the applicability determinations. Paragraphs (f)(9) and (f)(10) of this section describe criteria for removing the TPPU designation from a process unit.

(1) *Initial determination*. The owner or operator shall initially determine if a process unit is subject to the provisions of this subpart based on the primary product of the process unit in accordance with paragraphs (f)(1)(i) through (iii) of this section. If the process unit never uses or manufactures any organic HAP, regardless of the outcome of the primary product determination, the only requirements of this subpart that might apply to the process unit are contained in paragraph (b) of this section. If a flexible operation unit does not use or manufacture any organic HAP during the manufacture of one or more products, paragraph (f)(5)(i) of this section applies to that flexible operation unit.

(i) If a process unit only manufactures one product, then that product shall represent the primary product of the process unit.

(ii) If a process unit produces more than one intended product at the same time, the primary product shall be determined in accordance with paragraph (f)(1)(ii)(A) or (B) of this section.

(A) The product for which the process unit has the greatest annual design capacity on a mass basis shall represent the primary product of the process unit, or

(B) If a process unit has the same maximum annual design capacity on a mass basis for two or more products, and if one of those products is a thermoplastic product, then the thermoplastic product shall represent the primary product of the process unit.

(iii) If a process unit is designed and operated as a flexible operation unit, the primary product shall be determined as specified in paragraphs (f)(1)(iii)(A) or (B) of this section based on the anticipated

operations for the 5 years following September 12, 1996 at existing process units, or for the first year after the process unit begins production of any product for new process units. If operations cannot be anticipated sufficiently to allow the determination of the primary product for the specified period, applicability shall be determined (in accordance with paragraph (f)(2) of this section.

(A) If the flexible operation unit will manufacture one product for the greatest operating time over the specified 5 year period for existing process units, or the specified 1 year period for new process units, then that product shall represent the primary product of the flexible operation unit.

(B) If the flexible operation unit will manufacture multiple products equally based on operating time, then the product with the greatest expected production on a mass basis over the specified 5 year period for existing process units, or the specified 1 year period for new process units shall represent the primary product of the flexible operation unit.

(iv) If, according to paragraph (f)(1)(i), (ii), or (iii) of this section, the primary product of a process unit is a thermoplastic product, then that process unit shall be designated as a TPPU. That TPPU and associated equipment, as listed in paragraph (a)(4) of this section is either an affected source or part of an affected source comprised of other TPPU and associated equipment, as listed in paragraph (a)(4) of this section, subject to this subpart with the same primary product at the same plant site that is a major source. If the primary product of a process unit is determined to be a product that is not a thermoplastic product, then that process unit is not a TPPU.

(2) If the primary product cannot be determined for a flexible operation unit in accordance with paragraph (f)(1)(iii) of this section, applicability shall be determined in accordance with this paragraph.

(i) If the owner or operator cannot determine the primary product in accordance with paragraph (f)(1)(iii) of this section, but can determine that a thermoplastic product is not the primary product, then that flexible operation unit is not a TPPU.

(ii) If the owner or operator cannot determine the primary product in accordance with paragraph (f)(1)(iii) of this section, and cannot determine that a thermoplastic product is not the primary product as specified in paragraph (f)(2)(i) of this section, applicability shall be determined in accordance with paragraph (f)(2)(ii)(A) or (f)(2)(ii)(B) of this section.

(A) If the flexible operation unit is an existing process unit, the flexible operation unit shall be designated as a TPPU if a thermoplastic product was produced for 5 percent or greater of the total operating time of the flexible operating unit since March 9, 1999. That TPPU and associated equipment, as listed in paragraph (a)(4) of this section, is either an affected source, or part of an affected source comprised of other TPPU and associated equipment, as listed in paragraph (a)(4) of this section, subject to this subpart with the same primary product at the same plant site that is a major source. For a flexible operation unit that is designated as an TPPU in accordance with this paragraph, the thermoplastic product produced for the greatest amount of time since March 9, 1999 shall be designated as the primary product of the TPPU.

(B) If the flexible operation unit is a new process unit, the flexible operation unit shall be designated as a TPPU if the owner or operator anticipates that a thermoplastic product will be manufactured in the flexible operation unit at any time in the first year after the date the unit begins production of any product. That TPPU and associated equipment, as listed in paragraph (a)(4) of this section, is either an affected source, or part of an affected source comprised of other TPPU and associated equipment, as listed in paragraph (a)(4) of this section, subject to this subpart with the same primary product at the same plant site that is a major source. For a process unit that is designated as a TPPU in accordance with this paragraph, the thermoplastic product that will be produced shall be designated as the primary product of the TPPU. If more than one thermoplastic product will be produced, the owner or operator may select which thermoplastic product is designated as the primary product.

(3) *Annual applicability determination for non-TPPUs that have produced a thermoplastic product.* Once per year beginning September 12, 2001, the owner or operator of each flexible operation unit that is not designated as a TPPU, but that has produced a thermoplastic product at any time in the preceding 5-year period or since the date that the unit began production of any product, whichever is shorter, shall perform the evaluation described in paragraphs (f)(3)(i) through (f)(3)(iii) of this section. However, an owner or operator that does not intend to produce any thermoplastic product in the future, in accordance with paragraph (f)(9) of this section, is not required to perform the evaluation described in paragraphs (f)(3)(i) through (f)(3)(iii) of this section.

(i) For each product produced in the flexible operation unit, the owner or operator shall calculate the percentage of total operating time over which the product was produced during the preceding 5-year period.

(ii) The owner or operator shall identify the primary product as the product with the highest percentage of total operating time for the preceding 5-year period.

(iii) If the primary product identified in paragraph (f)(3)(ii) is a thermoplastic product, the flexible operation unit shall be designated as a TPPU. The owner or operator shall notify the Administrator no later than 45 days after determining that the flexible operation unit is a TPPU, and shall comply with the requirements of this subpart in accordance with paragraph (i)(1) of this section for the flexible operation unit.

(4) *Applicability determination for non-TPPUs that have not produced a thermoplastic product.* The owner or operator that anticipates the production of a thermoplastic product in a process unit that is not designated as a TPPU, and in which no thermoplastic products have been produced in the previous 5-year period or since the date that the process unit began production of any product, whichever is shorter, shall determine if the process unit is subject to this subpart in accordance with paragraphs (f)(4)(i) and (ii) of this section. Also, owners or operators who have notified the Administrator that a process unit is not a TPPU in accordance with paragraph (f)(9) of this section, that now anticipate the production of a thermoplastic product in the process unit, shall determine if the process unit is subject to this subpart in accordance with paragraphs (f)(4)(i) and (ii) of this section.

(i) The owner or operator shall use the procedures in paragraph (f)(1) or (f)(2) of this section to determine if the process unit is designated as a TPPU, with the following exception: For existing process units that are determining the primary product in accordance with paragraph (f)(1)(iii) of this section, production shall be projected for the five years following the date that the owner or operator anticipates initiating the production of a thermoplastic product.

(ii) If the unit is designated as a TPPU in accordance with paragraph (f)(4)(i) of this section, the owner or operator shall comply in accordance with paragraph (i)(1) of this section.

(5) *Compliance for flexible operation units*. Owners or operators of TPPUs that are flexible operation units shall comply with the standards specified for the primary product, with the exceptions provided in paragraphs (f)(5)(i) and (f)(5)(ii) of this section.

(i) Whenever a flexible operation unit manufactures a product in which no organic HAP is used or manufactured, the owner or operator is only required to comply with either paragraph (b)(1) or (b)(2) of this section to demonstrate compliance for activities associated with the manufacture of that product. This subpart does not require compliance with the provisions of subpart A of this part for activities associated with the manufacture of a product that meets the criteria of paragraph (b) of this section.

(ii) Whenever a flexible operation unit manufactures a product that makes it subject to subpart GGG of this part, the owner or operator is not required to comply with the provisions of this subpart during the production of that product.

(6) Owners or operators of TPPUs that are flexible operation units have the option of determining the group status of each emission point associated with the flexible operation unit, in accordance with either paragraph (f)(6)(i) or (f)(6)(ii) of this section, with the exception of batch process vents. For batch process vents, the owner or operator shall determine the group status in accordance with § 63.1323.

(i) The owner or operator may determine the group status of each emission point based on emission point characteristics when the primary product is being manufactured. The criteria that shall be used for this group determination are the Group 1 criteria specified for the primary product.

(ii) The owner or operator may determine the group status of each emission point separately for each product produced by the flexible operation unit. For each product, the group status shall be determined using the emission point characteristics when that product is being manufactured and using the Group 1 criteria specified for the primary product. (Note: Under this scenario, it is possible that the group status, and therefore the requirement to achieve emission reductions, for an emission point may change depending on the product being manufactured.)

(7) Owners or operators determining the group status of emission points in flexible operation units based solely on the primary product in accordance with paragraph (f)(6)(i) of this section shall establish parameter monitoring levels, as required, in accordance with either paragraph (f)(7)(i) or (f)(7)(ii) of this section. Owners or operators determining the group status of emission points in flexible operation units based on each product in accordance with paragraph (f)(6)(ii) of this section shall establish parameter monitoring levels, as required, in accordance with paragraph (f)(7)(i) of this section.

(i) Establish separate parameter monitoring levels in accordance with § 63.1334(a) for each individual product.

(ii) Establish a single parameter monitoring level (for each parameter required to be monitored at each device subject to monitoring requirements) in accordance with § 63.1334(a) that would apply for all products.

(8) *Reporting requirements*. When it is determined that a process unit is a TPPU and subject to the requirements of this subpart, the Notification of Compliance Status required by § 63.1335(e)(5) shall include the information specified in paragraphs (f)(8)(i) and (f)(8)(ii) of this section, as applicable. If it is determined that the process unit is not subject to this subpart, the owner or operator shall either retain all information, data, and analysis used to document the basis for the determination that the primary product is not a thermoplastic product, or, when requested by the Administrator, demonstrate that the process unit is not subject to this subpart.

(i) If the TPPU manufactures only one thermoplastic product, identification of that thermoplastic product.

(ii) If the TPPU is designed and operated as a flexible operation unit, the information specified in paragraphs (f)(8)(ii)(A) through (f)(8)(ii)(D) of this section, as appropriate, shall be submitted.

(A) If a primary product could be determined, identification of the primary product.

(B) Identification of which compliance option, either paragraph (f)(6)(i) or (f)(6)(ii) of this section, has been selected by the owner or operator.

(C) If the option to establish separate parameter monitoring levels for each product in paragraph (f)(7)(i) of this section is selected, the identification of each product and the corresponding parameter monitoring level.

(D) If the option to establish a single parameter monitor level in paragraph (f)(7)(ii) of this section is selected, the parameter monitoring level for each parameter.

(9) *TPPUs terminating production of all thermoplastic products*. If a TPPU terminates the production of all thermoplastic products and does not anticipate the production of any thermoplastic products in the future, the process unit is no longer a TPPU and is not subject to this subpart after notification is made to the Administrator. This notification shall be accompanied by a rationale for why it is anticipated that no thermoplastic products will be produced in the process unit in the future.

(10) *Redetermination of applicability to TPPUs that are flexible operation units*. Whenever changes in production occur that could reasonably be expected to change the primary product of a TPPU that is operating as a flexible operation unit from a thermoplastic product to a product that would make the process unit subject to another subpart of this part, the owner or operator shall re-evaluate the status of the process unit as a TPPU in accordance with paragraphs (f)(10)(i) through (iii) of this section.

(i) For each product produced in the flexible operation unit, the owner or operator shall calculate the percentage of total operating time in which the product was produced for the preceding five-year period, or since the date that the process unit began production of any product, whichever is shorter.

(ii) The owner or operator shall identify the primary product as the product with the highest percentage of total operating time for the period.

(iii) If the conditions in (f)(10)(iii)(A) through (C) of this section are met, the flexible operation unit shall no longer be designated as a TPPU and shall no longer be subject to the provisions of this subpart after the date that the process unit is required to be in compliance with the provisions of the other subpart of this part to which it is subject. If the conditions in paragraphs (f)(10)(iii)(A) through (C) of this section are not met, the flexible operation unit shall continue to be considered a TPPU and subject to the requirements of this subpart.

(A) The product identified in (f)(10)(ii) of this section is not a thermoplastic product; and

(B) The production of the product identified in (f)(10)(ii) of this section is subject to another subpart of this part; and

(C) The owner or operator submits a notification to the Administrator of the pending change in applicability.

(g) *Storage vessel ownership determination*. The owner or operator shall follow the procedures specified in paragraphs (g)(1) through (g)(7) of this section to determine to which process unit a storage vessel shall be assigned. Paragraph (g)(8) of this section specifies when an owner or operator is required to redetermine to which process unit a storage vessel is assigned.

(1) If a storage vessel is already subject to another subpart of 40 CFR part 63 on September 12, 1996, said storage vessel shall be assigned to the process unit subject to the other subpart.

(2) If a storage vessel is dedicated to a single process unit, the storage vessel shall be assigned to that process unit.

(3) If a storage vessel is shared among process units, then the storage vessel shall be assigned to that process unit located on the same plant site as the storage vessel that has the greatest input into or output from the storage vessel (i.e., said process unit has the predominant use of the storage vessel).

(4) If predominant use cannot be determined for a storage vessel that is shared among process units and if only one of those process units is a TPPU subject to this subpart, the storage vessel shall be assigned to said TPPU.

(5) If predominant use cannot be determined for a storage vessel that is shared among process units and if more than one of the process units are TPPUs that have different primary products and that are subject to this subpart, then the owner or operator shall assign the storage vessel to any one of the said TPPUs.

(6) If the predominant use of a storage vessel varies from year to year, then predominant use shall be determined based on the utilization that occurred during the year preceding September 12, 1996 or based on the expected utilization for the 5 years following September 12, 1996 for existing affected sources, whichever is more representative of the expected operations for said storage vessel, and based on the expected utilization for the first 5 years after initial start-up for new affected sources. The determination of predominant use shall be reported in the Notification of Compliance Status, as required by § 63.1335(e)(5)(vi).

(7) Where a storage vessel is located at a major source that includes one or more process units which place material into, or receive materials from the storage vessel, but the storage vessel is located in a tank farm (including a marine tank farm), the applicability of this subpart shall be determined according to the provisions in paragraphs (g)(7)(i) through (g)(7)(iv) of this section.

(i) The storage vessel may only be assigned to a process unit that utilizes the storage vessel and does not have an intervening storage vessel for that product (or raw material, as appropriate). With respect to any process unit, an intervening storage vessel means a storage vessel connected by hard-piping both to the process unit and to the storage vessel in the tank farm so that product or raw material entering or leaving the process unit flows into (or from) the intervening storage vessel and does not flow directly into (or from) the storage vessel in the tank farm.

(ii) If there is no process unit at the major source that meets the criteria of paragraph (g)(7)(i) of this section with respect to a storage vessel, this subpart does not apply to the storage vessel.

(iii) If there is only one process unit at the major source that meets the criteria of paragraph (g)(7)(i) of this section with respect to a storage vessel, the storage vessel shall be assigned to that process unit.

(iv) If there are two or more process units at the major source that meet the criteria of paragraph (g)(7)(i) of this section with respect to a storage vessel, the storage vessel shall be assigned to one of those process units according to the provisions of paragraphs (g)(3) through (g)(6) of this section. The predominant use shall be determined among only those process units that meet the criteria of paragraph (g)(7)(i) of this section.

(8) If the storage vessel begins receiving material from (or sending material to) a process unit that was not included in the initial determination, or ceases to receive material from (or send material to) a process unit, the owner or operator shall re-evaluate the applicability of this subpart to the storage vessel.

(h) *Recovery operations equipment ownership determination*. The owner or operator shall follow the procedures specified in paragraphs (h)(1) through (h)(6) of this section to determine to which process unit recovery operations equipment shall be assigned. Paragraph (h)(7) of this section specifies when an owner or operator is required to redetermine to which process unit the recovery operations equipment is assigned.

(1) If recovery operations equipment is already subject to another subpart of 40 CFR part 63 on September 12, 1996, said recovery operations equipment shall be assigned to the process unit subject to the other subpart.

(2) If recovery operations equipment is dedicated to a single process unit, the recovery operations equipment shall be assigned to that process unit.

(3) If recovery operations equipment is shared among process units, then the recovery operations equipment shall be assigned to that process unit located on the same plant site as the recovery operations equipment that has the greatest input into or output from the recovery operations equipment (i.e., said process unit has the predominant use of the recovery operations equipment)

(4) If predominant use cannot be determined for recovery operations equipment that is shared among process units and if one of those process units is a TPPU subject to this subpart, the recovery operations equipment shall be assigned to said TPPU.

(5) If predominant use cannot be determined for recovery operations equipment that is shared among process units and if more than one of the process units are TPPUs that have different primary products and that are subject to this subpart, then the owner or operator shall assign the recovery operations equipment to any one of said TPPUs.

(6) If the predominant use of recovery operations equipment varies from year to year, then predominant use shall be determined based on the utilization that occurred during the year preceding September 12, 1996 or based on the expected utilization for the 5 years following September 12, 1996 for existing affected sources, whichever is the more representative of the expected operations for said recovery operations equipment, and based on the first 5 years after initial start-up for new affected sources. The determination of predominant use shall be reported in the Notification of Compliance Status, as required by § 63.1335(e)(5)(vii).

(7) If a piece of recovery operations equipment begins receiving material from a process unit that was not included in the initial determination, or ceases to receive material from a process unit that was included in the initial determination, the owner or operator shall reevaluate the applicability of this subpart to that recovery operations equipment.

(i) *Changes or additions to plant sites*. The provisions of paragraphs (i)(1) through (i)(4) of this section apply to owners or operators that change or add to their plant site or affected source. Paragraph (i)(5) of this section provides examples of what are and are not considered process changes for purposes of this paragraph (i) of this section. Paragraph (i)(6) of this section discusses reporting requirements.

(1) *Adding a TPPU to a plant site*. The provisions of paragraphs (i)(1)(i) and (i)(1)(ii) of this section apply to owners or operators that add one or more TPPUs to a plant site.

(i) If a group of one or more TPPUs that produce the same primary product is added to a plant site, the added group of one or more TPPUs and associated equipment, as listed in paragraph (a)(4) of this section, shall be a new affected source and shall comply with the requirements for a new affected source in this subpart upon initial start-up or by June 19, 2000, whichever is later, except that new affected sources whose primary product, as determined using the procedures specified in paragraph (f) of this section, is poly(ethylene terephthalate) (PET) shall be in compliance with § 63.1331 upon initial start-up or February 27, 2001, whichever is later, if the added group of one or more TPPUs meets the criteria in either paragraph (i)(1)(i)(A) or (i)(1)(i)(B) of this section, and the criteria in either paragraph (i)(1)(i)(C) or (i)(1)(i)(D) of this section are met.

(A) The construction of the group of one or more TPPUs commenced after March 29, 1995.

(B) The construction or reconstruction, for process units that have become TPPUs, commenced after March 29, 1995.

(C) The group of one or more TPPUs and associated equipment, as listed in paragraph (a)(4) of this section, has the potential to emit 10 tons per year or more of any HAP or 25 tons per year or more of any combination of HAP, and the primary product of the group of one or more TPPUs is currently produced at the plant site as the primary product of an affected source; or

(D) The primary product of the group of one or more TPPUs is not currently produced at the plant site as the primary product of an affected source and the plant site meets, or after the addition of the group of one or more TPPUs and associated equipment, as listed in paragraph (a)(4) of this section, will meet the definition of a major source.

(ii) If a group of one or more TPPUs that produce the same primary product is added to a plant site, and the group of one or more TPPUs does not meet the criteria specified in paragraph (i)(1)(i) of this section, and the plant site meets, or after the addition will meet, the definition of a major source, the group of one or more TPPUs and associated equipment, as listed in paragraph (a)(4) of this section, shall comply with the requirements for an existing affected source in this subpart upon initial start-up; by June 19, 2001; or by 6 months after notifying the Administrator that a process unit has been designated as a TPPU (in accordance with paragraph (f)(3)(iii) of this section), whichever is later.

(2) *Adding emission points or making process changes to existing affected sources*. The provisions of paragraphs (i)(2)(i) through (i)(2)(ii) of this section apply to owners or operators that add emission points or make process changes to an existing affected source.

(i) If any components are replaced at an existing affected source such that the criteria specified in paragraphs (i)(2)(i)(A) through (i)(2)(i)(B) of this section are met, the entire affected source shall be a new affected source and shall comply with the requirements for a new affected source upon initial start-up or by June 19, 2000, whichever is later, as provided in § 63.6(b), except that new affected sources whose primary product is poly(ethylene terephthalate) (PET) shall be in compliance with § 63.1331 upon initial start-up or by February 27, 2001, whichever is later.

(A) The replacement of components meets the definition of reconstruction in § 63.1312(b); and

(B) Such reconstruction commenced after March 29, 1995.

(ii) If any components are replaced at an existing affected source such that the criteria specified in paragraphs (i)(2)(i)(A) through (i)(2)(i)(B) of this section are not met, and that replacement of components creates one or more Group 1 emission points (i.e., either newly created Group 1 emission points or emission points that change group status from Group 2 to Group 1) or causes any other emission point to be added (i.e., Group 2 emission points, equipment leak components subject to § 63.1331, continuous process vents subject to §§ 63.1316 through 63.1320, and heat exchange systems subject to § 63.1328), the resulting emission point(s) shall be subject to the applicable requirements for an existing affected source. The resulting emission points shall be in compliance by 120 days after the date of initial start-up or by the appropriate compliance date specified in § 63.1311 (i.e., February 27, 1998 for most equipment leak components subject to § 63.1331, and June 19, 2001 for most emission points other than equipment leaks), whichever is later.

(iii) If an addition or process change (not including a process change that solely replaces components) is made to an existing affected source that creates one or more Group 1 emission points (i.e., either newly created Group 1 emission points or emission points that change group status from Group 2 to Group 1) or causes any other emission point to be added (i.e., Group 2 emission points, equipment leak components subject to § 63.1331, continuous process vents subject to §§ 63.1316 through 63.1320, and heat exchange

systems subject to § 63.1328), the resulting emission point(s) shall be subject to the applicable requirements for an existing affected source. The resulting emission point(s) shall be in compliance by 120 days after the date of initial start-up or by the appropriate compliance date specified in § 63.1311 (i.e., February 27, 1998 for most equipment leak components subject to § 63.1331, and June 19, 2001 for most emission points other than equipment leaks), whichever is later.

(iv) If any process change (not including a process change that solely replaces components) is made to an existing affected source that results in baseline emissions (i.e., emissions prior to applying controls for purposes of complying with this subpart) from continuous process vents in the collection of material recovery sections within the affected source at an existing affected source producing PET using a continuous dimethyl terephthalate process changing from less than or equal to 0.12 kg organic HAP per Mg of product to greater than 0.12 kg organic HAP per Mg of product, the continuous process vents shall be subject to the applicable requirements for an existing affected source. The resulting emission point(s) shall be in compliance by 120 days after the date of initial start-up or by June 19, 2001, whichever is later.

(3) *Existing affected source requirements for surge control vessels and bottoms receivers that become subject to subpart H requirements*. If a process change or addition of an emission point causes a surge control vessel or bottoms receiver to become subject to § 63.170 under this paragraph (i), the owner or operator shall be in compliance upon initial start-up or by June 19, 2001, whichever is later.

(4) *Existing affected source requirements for compressors that become subject to the requirements of subpart H of this part*. If a process change or the addition of an emission point causes a compressor to become subject to § 63.164 under this paragraph (i), the owner or operator shall be in compliance upon initial start-up or by the compliance date for that compressor as specified in § 63.1311(d)(1) through (d)(4), whichever is later.

(5) *Determining what are and are not process changes*. For purposes of paragraph (i) of this section, examples of process changes include, but are not limited to, changes in feedstock type, or process catalyst type, or the replacement, removal, or addition of recovery equipment, or equipment changes that increase production capacity. For purposes of paragraph (i) of this section, process changes do not include: Process upsets, unintentional temporary process changes, and changes that do not alter the equipment configuration and operating conditions.

(6) *Reporting requirements for owners or operators that change or add to their plant site or affected source.* Owners or operators that change or add to their plant site or affected source, as discussed in paragraphs (i)(1) and (i)(2) of this section, shall submit a report as specified in § 63.1335(e)(7)(iv).

(j) *Applicability of this subpart during periods of start-up, shutdown, malfunction, or non-operation*. Paragraphs (j)(1) through (j)(4) of this section shall be followed during periods of start-up, shutdown, malfunction, or non-operation of the affected source or any part thereof.

(1) The emission limitations set forth in this subpart and the emission limitations referred to in this subpart shall apply at all times except during periods of non-operation 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 and the emission limitations referred to in this subpart shall not apply during periods of start-up, shutdown, or malfunction, except as provided in paragraphs (j)(3) and (j)(4) of this section. During periods of start-up, shutdown, or malfunction, the owner or operator shall follow the applicable provisions of the start-up, shutdown, and malfunction plan required by § 63.1335(b)(1). However, if a start-up, shutdown, malfunction, or period of non-operation of one portion of an affected source does not affect the ability of a particular emission point to comply with the emission limitations to which it is subject, then that emission point shall still be required to comply with the applicable emission limitations of this subpart during the start-up, shutdown, malfunction, or period of non-operation. For example, if there is an

overpressure in the reactor area, a storage vessel that is part of the affected source would still be required to be controlled in accordance with the emission limitations in § 63.1314. Similarly, the degassing of a storage vessel would not affect the ability of a batch process vent to meet the emission limitations of §§ 63.1321 through 63.1327.

(2) The emission limitations set forth in subpart H of this part, as referred to in § 63.1331, shall apply at all times except during periods of non-operation of the affected source (or specific portion thereof) in which the lines are drained and depressurized resulting in cessation of the emissions to which § 63.1331 applies, or during periods of start-up, shutdown, malfunction, or process unit shutdown (as defined in § 63.161).

(3) The owner or operator shall not shut down items of equipment that are required or utilized for compliance with this subpart during periods of start-up, shutdown, or malfunction during times when emissions (or, where applicable, wastewater streams or residuals) 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 (j)(3) does not apply if the item of equipment is malfunctioning. This paragraph 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 start-up, shutdown, or malfunction 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 start-up, shutdown, or malfunction of the affected source or portion thereof, the owner or operator shall provide documentation supporting such a claim in the Precompliance Report or in a supplement to the Precompliance Report, as provided in § 63.1335(e)(3). Once approved by the Administrator in accordance with § 63.1335(e)(3)(viii), the provision for ceasing to collect, during a start-up, shutdown, or malfunction, monitoring data that would otherwise be required by the provisions of this subpart must be incorporated into the start-up, shutdown, malfunction plan for that affected source, as stated in § 63.1335(b)(1).

(4) During start-ups, shutdowns, and malfunctions when the emission limitations of this subpart do not apply pursuant to paragraphs (j)(1) through (j)(3) of this section, the owner or operator shall implement, to the extent reasonably available, measures to prevent or minimize excess emissions to the extent practical. For purposes of this paragraph, the term "excess emissions" means emissions greater than those allowed by the emissions limitation which would apply during operational periods other than start-up, shutdown, and malfunction. The measures to be taken shall be identified in the applicable start-up, shutdown, and malfunction 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.

**[40 CFR 63.1311]**

**Compliance dates and relationship of this subpart to existing applicable rules.**

(a) Affected sources are required to achieve compliance on or before the dates specified in paragraphs (b) through (d) of this section. Paragraph (e) of this section provides information on requesting compliance extensions. Paragraphs (f) through (n) of this section discuss the relationship of this subpart to subpart A of this part and to other applicable rules. Where an override of another authority of the Act is indicated in this subpart, only compliance with the provisions of this subpart is required. Paragraph (o) of this section specifies the meaning of time periods.

(b) New affected sources that commence construction or reconstruction after March 29, 1995 shall be in compliance with this subpart upon initial start-up or by June 19, 2000, whichever is later, except that new affected sources whose primary product, as determined using the procedures specified in § 63.1310(f), is PET shall be in compliance with § 63.1331 upon initial start-up or August 6, 2002, whichever is later.

(c) Existing affected sources shall be in compliance with this subpart (except for § 63.1331 for which compliance is covered by paragraph (d) of this section) no later than June 19, 2001, as provided in § 63.6(c), unless an extension has been granted as specified in paragraph (e) of this section, except that the compliance date for the provisions contained in § 63.1329 is extended to February 27, 2001, for existing affected sources whose primary product, as determined using the procedures specified in § 63.1310(f), is PET using a continuous terephthalic acid high viscosity multiple end finisher process.

(d) Except as provided for in paragraphs (d)(1) through (d)(6) of this section, existing affected sources shall be in compliance with § 63.1331 no later than June 19, 2001, unless an extension has been granted pursuant to paragraph (e) of this section.

(1) Compliance with the compressor provisions of § 63.164 shall occur no later than February 27, 1998, for any compressor meeting one or more of the criteria in paragraphs (d)(1)(i) through (d)(1)(iv) of this section, if the work can be accomplished without a process unit shutdown:

(i) The seal system will be replaced;

(ii) A barrier fluid system will be installed;

(iii) A new barrier fluid will be utilized which requires changes to the existing barrier fluid system; or

(iv) The compressor will be modified to permit connecting the compressor to a fuel gas system or a closed vent system or modified so that emissions from the compressor can be routed to a process.

(2) Compliance with the compressor provisions of § 63.164 shall occur no later than March 12, 1998 for any compressor meeting all the criteria in paragraphs (d)(2)(i) through (d)(2)(iv) of this section:

(i) The compressor meets one or more of the criteria specified in paragraphs (d)(1)(i) through (d)(1)(iv) of this section;

(ii) The work can be accomplished without a process unit shutdown ;

(iii) The additional time is actually necessary due to the unavailability of parts beyond the control of the owner or operator; and

(iv) The owner or operator submits the request for a compliance extension to the appropriate Environmental Protection Agency (EPA) Regional Office at the address listed in § 63.13 no later than June 16, 1997. The request for a compliance extension shall contain the information specified in § 63.6(i)(6)(i)(A), (B), and (D). Unless the EPA Regional Office objects to the request for a compliance extension within 30 days after receipt of the request, the request shall be deemed approved.

(3) If compliance with the compressor provisions of § 63.164 cannot reasonably be achieved without a process unit shutdown, the owner or operator shall achieve compliance no later than September 12, 1998. The owner or operator who elects to use this provision shall submit a request for a compliance extension in accordance with the requirements of paragraph (d)(2)(iv) of this section.

(4) Compliance with the compressor provisions of § 63.164 shall occur not later than September 12, 1999 for any compressor meeting one or more of the criteria in paragraphs (d)(4)(i) through (d)(4)(iii) of this section. The owner or operator who elects to use these provisions shall submit a request for an extension of compliance in accordance with the requirements of paragraph (d)(2)(iv) of this section.

(i) Compliance cannot be achieved without replacing the compressor;

(ii) Compliance cannot be achieved without recasting the distance piece; or

(iii) Design modifications are required to connect to a closed-vent or recovery system.

(5) Compliance with the provisions of § 63.170 shall occur no later than June 19, 2001.

(6) Nothhstanding paragraphs (d)(1) through (5) of this section, existing affected sources whose primary product, as determined using the procedures specified in § 63.1310(f), is PET shall be in compliance with § 63.1331 no later than August 6, 2002.

(e) Pursuant to Section 112(i)(3)(B) of the Act, an owner or operator may request an extension allowing the existing affected source up to 1 additional year to comply with Section 112(d) standards. For purposes of this subpart, a request for an extension shall be submitted to the permitting authority as part of the operating permit application or to the Administrator as a separate submittal or as part of the Precompliance Report. Requests for extensions shall be submitted no later than 120 days prior to the compliance dates specified in paragraphs (b) through (d) of this section, or as specified elsewhere in this subpart, except as provided in paragraph (e)(3) of this section. The dates specified in § 63.6(i) for submittal of requests for extensions shall not apply to this subpart.

(1) A request for an extension of compliance shall include the data described in § 63.6(i)(6)(i) (A),(B), and (D).

(2) The requirements in § 63.6(i)(8) through § 63.6(i)(14) shall govern the review and approval of requests for extensions of compliance with this subpart.

(3) An owner or operator may submit a compliance extension request after the date specified in paragraph (e) of this section, provided that the need for the compliance extension arose after that date, and the need arose due to circumstances beyond reasonable control of the owner or operator. This request shall include, in addition to the information specified in paragraph (e)(1) of this section, a statement of the reasons additional time is needed and the date when the owner or operator first learned of the circumstances necessitating a request for compliance extension under this paragraph (e)(3).

(f) Table 1 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 affected sources subject to this subpart.

(g)(1) After the compliance dates specified in this section, an affected source subject to this subpart that is also subject to the provisions of subpart I of this part, is required to comply only with the provisions of this subpart. After the compliance dates specified in this section, said affected source shall no longer be subject to subpart I of this part.

(2) Said affected sources that elected to comply with subpart I of this part through a quality improvement program, as specified in § 63.175 or § 63.176 or both, may elect to continue these programs without interruption as a means of complying with this subpart. In other words, becoming subject to this subpart does not restart or reset the "compliance clock" as it relates to reduced burden earned through a quality improvement program.

(h) After the compliance dates specified in this section, a storage vessel that is assigned to an affected source subject to this subpart and that is also subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the provisions of this subpart. After the compliance dates specified in this section, said storage vessel shall no longer be subject to 40 CFR part 60, subpart Kb.

(i)(1) Except as provided in paragraphs (i)(2) and (i)(3) of this section, after the compliance dates specified in this section, affected sources producing PET using a continuous terephthalic acid process, producing PET using a continuous dimethyl terephthalate process, or producing polystyrene resin using a continuous process subject to this subpart that are also subject to the provisions of 40 CFR part 60,

subpart DDD, are required to comply only with the provisions of this subpart. After the compliance dates specified in this section, said sources shall no longer be subject to 40 CFR part 60, subpart DDD.

(2) Existing affected sources producing PET using a continuous terephthalic acid high viscosity multiple end finisher process shall continue to be subject to 40 CFR 60.562-1(c)(2)(ii)(C). Once said affected source becomes subject to and achieves compliance with § 63.1329(c) of this subpart, said affected source is no longer subject to the provisions of 40 CFR part 60, subpart DDD.

(3) Existing affected sources producing PET using a continuous terephthalic acid process, but not using a continuous terephthalic acid high viscosity multiple end finisher process, that are subject to and complying with 40 CFR 60.562-1(c)(2)(ii)(B) shall continue to comply with said section. Existing affected sources producing PET using a continuous dimethyl terephthalic process that are subject to and complying with 40 CFR 60.562-1(c)(1)(ii)(B) shall continue to comply with said section.

(j) Owners or operators of affected sources subject to this subpart that are also subject to the provisions of subpart Q of this part shall comply with both subparts.

(k) After the compliance dates specified in this section, an affected source subject to this subpart that is also subject to the provisions of 40 CFR part 60, subpart VV, is required to comply only with the provisions of this subpart. After the compliance dates specified in this section, said source shall no longer be subject to 40 CFR part 60, subpart VV.

(l) After the compliance dates specified in this section, a distillation operation that is assigned to an affected source subject to this subpart that is also subject to the provisions of 40 CFR part 60, subpart NNN, is required to comply only with the provisions of this subpart. After the compliance dates specified in this section, the distillation operation shall no longer be subject to 40 CFR part 60, subpart NNN.

(m) *Applicability of other regulations for monitoring, recordkeeping or reporting with respect to combustion devices, recovery devices, or recapture devices.* After the compliance dates specified in this subpart, if any combustion device, recovery device or recapture device subject to this subpart is also subject to monitoring, recordkeeping, and reporting requirements in 40 CFR part 264 subpart AA or CC, or is subject to monitoring and recordkeeping requirements in 40 CFR part 265 subpart AA or CC and the owner or operator complies with the periodic reporting requirements under 40 CFR part 264 subpart AA or CC that would apply to the device if the facility had final-permitted status, the owner or operator may elect to comply either with the monitoring, recordkeeping and reporting requirements of this subpart, or with the monitoring, recordkeeping and reporting requirements in 40 CFR parts 264 and/or 265, as described in this paragraph, which shall constitute compliance with the monitoring, recordkeeping and reporting requirements of this subpart. The owner or operator shall identify which option has been selected in the Notification of Compliance Status required by § 63.1335(e)(5).

(n) *Applicability of other requirements for heat exchange systems or waste management units.* Paragraphs (n)(1) and (n)(2) of this section address instances in which certain requirements from other regulations also apply for the same heat exchange system(s) or waste management unit(s) that are subject to this subpart.

(1) After the applicable compliance date specified in this subpart, if a heat exchange system subject to this subpart is also subject to a standard identified in paragraphs (n)(1)(i) or (ii) of this section, compliance with the applicable provisions of the standard identified in paragraphs (n)(1)(i) or (ii) of this section shall constitute compliance with the applicable provisions of this subpart with respect to that heat exchange system.

(i) Subpart F of this part.

(ii) A subpart of this part which requires compliance with § 63.104 (*e.g.*, subpart U of this part).

(2) After the applicable compliance date specified in this subpart, if any waste management unit subject to this subpart is also subject to a standard identified in paragraph (n)(2)(i) or (ii) of this section, compliance with the applicable provisions of the standard identified in paragraph (n)(2)(i) or (ii) of this section shall constitute compliance with the applicable provisions of this subpart with respect to that waste management unit.

(i) Subpart G of this part.

(ii) A subpart of this part which requires compliance with §§ 63.132 through 63.147.

(o) All terms in this subpart that define a period of time for completion of required tasks (*e.g.*, weekly, monthly, quarterly, annual), unless specified otherwise in the section or paragraph that imposes the requirement, refer to the standard calendar periods.

(1) Notwithstanding time periods specified in this subpart for completion of required tasks, such time periods may be changed by mutual agreement between the owner or operator and the Administrator, as specified in subpart A of this part (*e.g.*, a period could begin on the compliance date or another date, rather than on the first day of the standard calendar period). For each time period that is changed by agreement, the revised period shall remain in effect until it is changed. A new request is not necessary for each recurring period.

(2) Where the period specified for compliance is a standard calendar period, if the initial compliance date occurs after the beginning of the period, compliance shall be required according to the schedule specified in paragraphs (o)(2)(i) or (o)(2)(ii) of this section, as appropriate.

(i) Compliance shall be required before the end of the standard calendar period within which the compliance deadline occurs, if there remain at least 3 days for tasks that must be performed weekly, at least 2 weeks for tasks that must be performed monthly, at least 1 month for tasks that must be performed each quarter, or at least 3 months for tasks that must be performed annually; or

(ii) In all other cases, compliance shall be required before the end of the first full standard calendar period after the period within which the initial compliance deadline occurs.

(3) In all instances where a provision of this subpart requires completion of a task during each of multiple successive periods, an owner or operator may perform the required task at any time during the specified period, provided that the task is conducted at a reasonable interval after completion of the task during the previous period.

**[40 CFR 63.1312]**

**Definitions.**

(a) The following terms used in this subpart shall have the meaning given them in § 63.2, § 63.101, § 63.111, § 63.161, or the Act, as specified after each term:

Act (§ 63.2)

Administrator (§ 63.2)

Automated monitoring and recording system (§ 63.111)

Boiler (§ 63.111)

Bottoms receiver (§ 63.161)

By compound (§ 63.111)

By-product (§ 63.101)

Car-seal (§ 63.111)

Closed-vent system (§ 63.111)

Combustion device (§ 63.111)

Commenced (§ 63.2)

Compliance date (§ 63.2)

Connector (§ 63.161)

Continuous monitoring system (§ 63.2)

Distillation unit (§ 63.111)

Duct work (§ 63.161)

Emission limitation (Section 302(k) of the Act)

Emission standard (§ 63.2)

Emissions averaging (§ 63.2)

EPA (§ 63.2)

Equipment leak (§ 63.101)

External floating roof (§ 63.111)

Fill or filling (§ 63.111)

First attempt at repair (§ 63.161)

Fixed capital cost (§ 63.2)

Flame zone (§ 63.111)

Floating roof (§ 63.111)

Flow indicator (§ 63.111)

Fuel gas system (§ 63.101)

Halogens and hydrogen halides (§ 63.111)

Hard-piping (§ 63.111)

Hazardous air pollutant (§ 63.2)

Impurity (§ 63.101)

In organic hazardous air pollutant service or in organic HAP service (§ 63.161)

Incinerator (§ 63.111)

Instrumentation system (§ 63.161)

Internal floating roof (§ 63.111)

Lesser quantity (§ 63.2)

Major source (§ 63.2)

Malfunction (§ 63.2)

Oil-water separator or organic-water separator (§ 63.111)

Open-ended valve or line (§ 63.161)

Operating permit (§ 63.101)

Organic monitoring device (§ 63.111)

Owner or operator (§ 63.2)

Performance evaluation (§ 63.2)

Performance test (§ 63.2)

Permitting authority (§ 63.2)

Plant site (§ 63.101)

Potential to emit (§ 63.2)

Pressure release (§ 63.161)

Primary fuel (§ 63.111)

Process heater (§ 63.111)

Process unit shutdown (§ 63.161)

Process wastewater (§ 63.101)

Process wastewater stream (§ 63.111)

Reactor (§ 63.111)

Recapture device (§ 63.101)

Repaired (§ 63.161)

Research and development facility (§ 63.101)

Routed to a process or route to a process (§ 63.161)

Run (§ 63.2)

Secondary fuel (§ 63.111)

Sensor (§ 63.161)

Specific gravity monitoring device (§ 63.111)

Start-up, shutdown, and malfunction plan (§ 63.101)

State (§ 63.2)

Stationary Source (§ 63.2)

Surge control vessel (§ 63.161)

Temperature monitoring device (§ 63.111)

Test method (§ 63.2)

Treatment process (§ 63.111)

Unit operation (§ 63.101)

Visible emission (§ 63.2)

(b) All other terms used in this subpart shall have the meaning given them in this section. If a term is defined in §§ 63.2, 63.101, 63.111, or 63.161 and in this section, it shall have the meaning given in this section for purposes of this subpart.

*Acrylonitrile butadiene styrene latex resin (ABS latex)* means ABS produced through an emulsion process; however, the product is not coagulated or dried as typically occurs in an emulsion process.

*Acrylonitrile butadiene styrene resin (ABS)* means styrenic terpolymers consisting primarily of acrylonitrile, 1,3-butadiene, and styrene monomer units. ABS is usually composed of a styrene-acrylonitrile copolymer continuous phase with dispersed butadiene derived rubber.

*Acrylonitrile styrene acrylate resin (ASA)* means a resin formed using acrylic ester-based elastomers to impact-modify styrene acrylonitrile resin matrices.

*Aggregate batch vent stream* means a gaseous emission stream containing only the exhausts from two or more batch process vents that are ducted, hardpiped, or otherwise connected together for a continuous flow.

*Affected source* is defined in § 63.1310(a).

*Alpha methyl styrene acrylonitrile resin (AMSAN)* means copolymers consisting primarily of alpha methyl styrene and acrylonitrile.

*Annual average batch vent concentration* is determined using Equation 1, as described in § 63.1323(h)(2) for halogenated compounds.

*Annual average batch vent flow rate* is determined by the procedures in § 63.1323(e)(3).

*Annual average concentration*, as used in the wastewater provisions, means the flow-weighted annual average concentration, as determined according to the procedures specified in § 63.144(b), with the exceptions noted in § 63.1330, for the purposes of this subpart.

*Annual average flow rate*, as used in the wastewater provisions, means the annual average flow rate, as determined according to the procedures specified in § 63.144(c), with the exceptions noted in § 63.1330, for the purposes of this subpart.

*Average batch vent concentration* is determined by the procedures in § 63.1323(b)(5)(iii) for HAP concentrations and is determined by the procedures in § 63.1323(h)(1)(iii) for organic compounds containing halogens and hydrogen halides.

*Average batch vent flow rate* is determined by the procedures in § 63.1323(e)(1) and (e)(2).

*Batch cycle* means the operational step or steps, from start to finish, that occur as part of a batch unit operation.

*Batch emission episode* means a discrete emission venting episode associated with a single batch unit operation. Multiple batch emission episodes may occur from a single batch unit operation.

*Batch mass input limitation* means an enforceable restriction on the total mass of HAP or material that can be input to a batch unit operation in one year.

*Batch mode* means the discontinuous bulk movement of material through a unit operation. Mass, temperature, concentration, and other properties may vary with time. For a unit operation operated in a batch mode (*i.e.,* batch unit operation), the addition of material and withdrawal of material do not typically occur simultaneously.

*Batch process* means, for the purposes of this subpart, a process where the reactor(s) is operated in a batch mode.

*Batch process vent* means a process vent with annual organic HAP emissions greater than 225 kilograms per year from a batch unit operation within an affected source. Annual organic HAP emissions are determined as specified in § 63.1323(b) at the location specified in § 63.1323(a)(2).

*Batch unit operation* means a unit operation operated in a batch mode.

*Combined vent stream,* as used in reference to batch process vents, continuous process vents, and aggregate batch vent streams, means the emissions from a combination of two or more of the aforementioned types of process vents. The primary occurrence of a combined vent stream is the combined emissions from a continuous process vent and a batch process vent.

*Combustion device burner* means a device designed to mix and ignite fuel and air to provide a flame to heat and oxidize waste organic vapors in a combustion device.

*Compounding unit* means a unit operation which blends, melts, and resolidifies solid polymers for the purpose of incorporating additives, colorants, or stabilizers into the final thermoplastic product. A unit operation whose primary purpose is to remove residual monomers from polymers is not a compounding unit.

*Construction* means the on-site fabrication, erection, or installation of an affected source. Construction also means the on-site fabrication, erection, or installation of a process unit or combination of process units which subsequently becomes an affected source or part of an affected source, due to a change in primary product.

*Continuous mode* means the continuous movement of material through a unit operation. Mass, temperature, concentration, and other properties typically approach steady-state conditions. For a unit operation operated in a continuous mode (*i.e.,* continuous unit operation), the simultaneous addition of raw material and withdrawal of product is typical.

*Continuous process* means, for the purposes of this subpart, a process where the reactor(s) is operated in a continuous mode.

*Continuous process vent* means a process vent containing greater than 0.005 weight percent total organic HAP from a continuous unit operation within an affected source. The total organic HAP weight percent is determined after the last recovery device, as described in § 63.115(a), and is determined as specified in § 63.115(c).

*Continuous record* means documentation, either in hard copy or computer readable form, of data values measured at least once every 15 minutes and recorded at the frequency specified in § 63.1335(d) or § 63.1335(h).

*Continuous recorder* means a data recording device that either records an instantaneous data value at least once every 15 minutes or records 1-hour or more frequent block average values.

*Continuous unit operation* means a unit operation operated in a continuous mode.

*Control device* is defined in § 63.111, except that the term "continuous process vents subject to § 63.1315" shall apply instead of the term "process vents," for the purpose of this subpart.

*Drawing unit* means a unit operation which converts polymer into a different shape by melting or mixing the polymer and then pulling it through an orifice to create a continuously extruded product.

*Emission point* means an individual continuous process vent, batch process vent, storage vessel, waste management unit, equipment leak, heat exchange system, or process contact cooling tower, or equipment subject to § 63.149.

*Emulsion process* means a process where the monomer(s) is dispersed in droplets throughout the water phase with the aid of an emulsifying agent such as soap or a synthetic emulsifier. The polymerization occurs either within the emulsion droplet or in the aqueous phase.

*Equipment* means, for the purposes of the provisions in § 63.1331 and the requirements in subpart H that are referred to in § 63.1331, each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, surge control vessel, bottoms receiver, and instrumentation system in organic hazardous air pollutant service; and any control devices or systems required by subpart H of this part.

*Existing affected source* is defined in § 63.1310(a)(3).

*Existing process unit* means any process unit that is not a new process unit.

*Expandable polystyrene resin (EPS)* means a polystyrene bead to which a blowing agent has been added using either an in-situ suspension process or a post-impregnation suspension process.

*Extruding unit* means a unit operation which converts polymer into a different shape by melting or mixing the polymer and then forcing it through an orifice to create a continuously extruded product.

*Flexible operation unit* means a process unit that manufactures different chemical products, polymers, or resins periodically by alternating raw materials or operating conditions. These units are also referred to as campaign plants or blocked operations.

*Group 1 batch process vent* means a batch process vent releasing annual organic HAP emissions greater than the level specified in § 63.1323(d) and with a cutoff flow rate, calculated in accordance with § 63.1323(f), greater than or equal to the annual average batch vent flow rate. Annual organic HAP emissions and annual average batch vent flow rate are determined at the exit of the batch unit operation, as described in § 63.1323(a)(2). Annual organic HAP emissions are determined as specified in § 63.1323(b), and annual average batch vent flow rate is determined as specified in § 63.1323(e).

*Group 2 batch process vent* means a batch process vent that does not fall within the definition of a Group 1 batch process vent.

*Group 1 continuous process vent* means a continuous process vent releasing a gaseous emission stream that has a total resource effectiveness index value, calculated according to § 63.115, less than or equal to 1.0 unless the continuous process vent is associated with existing thermoplastic product process units that produce methyl methacrylate butadiene styrene resin, then said vent falls within the Group 1 definition if the released emission stream has a total resource effectiveness index value less than or equal to 3.7.

*Group 2 continuous process vent* means a continuous process vent that does not fall within the definition of a Group 1 continuous process vent.

*Group 1 storage vessel* means a storage vessel at an existing affected source that meets the applicability criteria specified in Table 2 or Table 3 of this subpart, or a storage vessel at a new affected source that meets the applicability criteria specified in Table 4 or Table 5 of this subpart.

*Group 2 storage vessel* means a storage vessel that does not fall within the definition of a Group 1 storage vessel.

*Group 1 wastewater stream* means a wastewater stream consisting of process wastewater from an existing or new affected source that meets the criteria for Group 1 status in § 63.132(c) and/or that meets the criteria for Group 1 status in § 63.132(d), with the exceptions listed in § 63.1330(b)(8) for the purposes of this subpart (i.e., for organic HAP as defined in this section).

*Group 2 wastewater stream* means any process wastewater stream that does not meet the definition of a Group 1 wastewater stream.

*Halogenated aggregate batch vent stream* means an aggregate batch vent stream determined to have a total mass emission rate of halogen atoms contained in organic compounds of 3,750 kilograms per year or greater determined by the procedures specified in § 63.1323(h).

*Halogenated batch process vent* means a batch process vent determined to have a mass emission rate of halogen atoms contained in organic compounds of 3,750 kilograms per year or greater determined by the procedures specified in § 63.1323(h).

*Halogenated continuous process vent* means a continuous process vent determined to have a mass emission rate of halogen atoms contained in organic compounds of 0.45 kilograms per hour or greater determined by the procedures specified in § 63.115(d)(2)(v).

*Heat exchange system* means any cooling tower system or once-through cooling water system (*e.g.,* river or pond water) designed and intended to operate to not allow contact between the cooling medium and process fluid or gases (*i.e.,* a noncontact system). A heat exchange system can include more than one heat exchanger and can include recirculating or once-through cooling systems.

*Highest-HAP recipe* for a product means the recipe of the product with the highest total mass of HAP charged to the reactor during the production of a single batch of product.

*Initial start-up* means the first time a new or reconstructed affected source begins production of a thermoplastic product, or, for equipment added or changed as described in § 63.1310(i), the first time the equipment is put into operation to produce a thermoplastic product. Initial start-up does not include operation solely for testing equipment. Initial start-up does not include subsequent start-ups of an affected source or portion thereof following malfunctions or shutdowns or following changes in product for flexible operation units or following recharging of equipment in batch operation. Further, for purposes of § 63.1311 and § 63.1331, initial start-up does not include subsequent start-ups of affected sources or portions thereof following malfunctions or process unit shutdowns.

*Maintenance wastewater* is defined in § 63.101, except that the term "thermoplastic product process unit" shall apply wherever the term "chemical manufacturing process unit" is used. Further, the generation of wastewater from the routine rinsing or washing of equipment in batch operation between batches is not maintenance wastewater, but is considered to be process wastewater, for the purposes of this subpart.

*Mass process* means a polymerization process carried out through the use of thermal energy. Mass processes do not utilize emulsifying or suspending agents, but may utilize catalysts or other additives.

*Material recovery section* means, for PET plants, the equipment that recovers by-product methanol from any process section for use, reuse, or sale, or the equipment that separates materials containing by-product methanol from any process section for off-site purification or treatment with the intent to recover methanol for reuse. For polystyrene plants, material recovery section means the equipment that recovers unreacted styrene from any process section for use, reuse, or sale, or the equipment that separates materials containing unreacted styrene from any process section for off-site purification or treatment with the intent to recover styrene for reuse. Equipment used to store recovered materials (*i.e.*, ethylene glycol, methanol, or styrene) is not included. Equipment designed to recover or separate materials from the polymer product is to be included in this process section, provided that at the time of initial compliance some of the unreacted or by-product material is recovered for return to the TPPU, or sale, or provided that some of the separated material is sent for off-site purification or treatment with the intent to recover the unreacted or by-product material for reuse. Otherwise, such equipment is to be assigned to one of the other process sections, as appropriate. If equipment is used to recover unreacted or by-product material

and return it directly to the same piece of process equipment from which it was emitted, then that recovery equipment is considered part of the process section that contains the process equipment. On the other hand, if equipment is used to recover unreacted or by-product material and return it to a different piece of process equipment in the same process section, that recovery equipment is considered part of a material recovery section. Equipment used for the on-site recovery of ethylene glycol from PET plants, however, is not included in the material recovery section; such equipment is to be included in the polymerization reaction section. Equipment used for the on-site recovery of both ethylene glycol and any other materials from PET plants is not included in the material recovery section; this equipment is to be included in the polymerization reaction section. Such equipment includes both contact and non-contact condensers removing ethylene glycol from vapor streams coming out of polymerization vessels.

*Maximum true vapor pressure* is defined in § 63.111, except that the terms "transfer" or "transferred" shall not apply for purposes of this subpart.

*Methyl methacrylate acrylonitrile butadiene styrene resin (MABS)* means styrenic polymers containing methyl methacrylate, acrylonitrile, butadiene, and styrene. MABS is prepared by dissolving or dispersing polybutadiene rubber in a mixture of methyl methacrylate-acrylonitrile-styrene and butadiene monomer. The graft polymerization is carried out by a bulk or a suspension process.

*Methyl methacrylate butadiene styrene resin (MBS)* means styrenic polymers containing methyl methacrylate, butadiene, and styrene. Production of MBS is achieved using an emulsion process in which methyl methacrylate and styrene are grafted onto a styrene-butadiene rubber.

*Multicomponent system* means, as used in conjunction with batch process vents, a stream whose liquid and/or vapor contains more than one compound.

*New process unit* means a process unit for which the construction or reconstruction commenced after March 29, 1995.

*Nitrile resin* means a resin produced through the polymerization of acrylonitrile, methyl acrylate, and butadiene latex using an emulsion process.

*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 or TPPU to which the records pertain, or storage in central files elsewhere at the major source.

*Operating day* means the period defined by the owner or operator in the Notification of Compliance Status required by § 63.1335(e)(5). The operating day is the period for which daily average monitoring values and batch cycle daily average monitoring values are determined.

*Organic hazardous air pollutant(s) (organic HAP)* means one or more of the chemicals listed in Table 6 of this subpart or any other chemical which is:

(1) Knowingly produced or introduced into the manufacturing process other than as an impurity; and

(2) Listed in Table 2 of subpart F of this part.

*PET using a dimethyl terephthalate process* means the manufacturing of PET based on the esterification of dimethyl terephthalate with ethylene glycol to form the intermediate monomer bis-(2-hydroxyethyl)-terephthalate that is subsequently polymerized to form PET.

*PET using a terephthalic acid process* means the manufacturing of PET based on the esterification reaction of terephthalic acid with ethylene glycol to form the intermediate monomer bis-(2-hydroxyethyl)-terephthalate that is subsequently polymerized to form PET.

*Poly(ethylene terephthalate) resin (PET)* means a polymer or copolymer comprised of at least 50 percent bis-(2-hydroxyethyl)-terephthalate by weight.

*Polymerization reaction section* means the equipment designed to cause monomer(s) to react to form polymers, including equipment designed primarily to cause the formation of short polymer chains (*e.g.,* oligomers or low molecular weight polymers), but not including equipment designed to prepare raw materials for polymerization (*e.g.,* esterification vessels). For the purposes of these standards, the polymerization reaction section begins with the equipment used to transfer the materials from the raw materials preparation section and ends with the last vessel in which polymerization occurs. Equipment used for the on-site recovery of ethylene glycol from PET plants is included in this process section, rather than in the material recovery process section.

*Polystyrene resin* means a thermoplastic polymer or copolymer comprised of at least 80 percent styrene or para-methylstyrene by weight.

*Primary product* is defined in and determined by the procedures specified in § 63.1310(f).

*Process contact cooling tower system* means a cooling tower system that is designed and operated to allow contact between the cooling medium and process fluid or gases.

*Process section* means the equipment designed to accomplish a general but well-defined task in polymers production. Process sections include, but are not limited to, raw materials preparation, polymerization reaction, and material recovery. A process section may be dedicated to a single TPPU or common to more than one TPPU.

*Process unit* means a collection of equipment assembled and connected by hardpiping or duct work, used to process raw materials and to manufacture a product.

*Process vent* means a gaseous emission stream from a unit operation that is discharged to the atmosphere either directly or after passing through one or more control, recovery, or recapture devices. Unit operations that may have process vents are condensers, distillation units, reactors, or other unit operations within the TPPU. Process vents exclude pressure releases, gaseous streams routed to a fuel gas system(s), and leaks from equipment regulated under § 63.1331. A gaseous emission stream is no longer considered to be a process vent after the stream has been controlled and monitored in accordance with the applicable provisions of this subpart.

*Product* means a polymer produced using the same monomers and varying in additives (*e.g.*, initiators, terminators, etc.); catalysts; or in the relative proportions of monomers, that is manufactured by a process unit. With respect to polymers, more than one recipe may be used to produce the same product. As an example, styrene acrylonitrile resin and methyl methacrylate butadiene styrene resin each represent a different product. Product also means a chemical that is not a polymer, that is manufactured by a process unit. By-products, isolated intermediates, impurities, wastes, and trace contaminants are not considered products.

*Raw materials preparation section* means the equipment at a polymer manufacturing plant designed to prepare raw materials, such as monomers and solvents, for polymerization. For the purposes of the standards in this subpart, this process section includes the equipment used to transfer raw materials from storage and/or the equipment used to transfer recovered material from the material recovery process sections to the raw material preparation section, and ends with the last piece of equipment that prepares

the material for polymerization. The raw materials preparation section may include equipment that is used to purify, dry, or otherwise treat raw materials or raw and recovered materials together; to activate catalysts; or to promote esterification including the formation of some short polymer chains (oligomers). The raw materials preparation section does not include equipment that is designed primarily to accomplish the formation of oligomers, the treatment of recovered materials alone, or the storage of raw or recovered materials.

*Recipe* means a specific composition, from among the range of possible compositions that may occur within a product, as defined in this section. A recipe is determined by the proportions of monomers and, if present, other reactants and additives that are used to make the recipe. For example, acrylonitrile butadiene styrene latex resin (ABS latex) without additives; ABS latex with an additive; and ABS latex with different proportions of acrylonitrile to butadiene are all different recipes of the same product, ABS latex.

*Reconstruction* means the replacement of components of an affected source or of a previously unaffected stationary source that becomes an affected source as a result of the replacement, 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 provisions of this subpart.

*Recovery device* means:

(1) An individual unit of equipment capable of and normally used for the purpose of recovering chemicals for:

(i) Use;

(ii) Reuse;

(iii) Fuel value (*i.e.,* net heating value); or

(iv) For sale for use, reuse, or fuel value (*i.e.,* net heating value).

(2) Examples of equipment that may be recovery devices include absorbers, carbon adsorbers, condensers, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers, or thin-film evaporation units. For the purposes of the monitoring, recordkeeping, or reporting requirements of this subpart, recapture devices are considered recovery devices.

*Recovery operations equipment* means the equipment used to separate the components of process streams. Recovery operations equipment includes distillation units, condensers, etc. Equipment used for wastewater treatment and recovery or recapture devices used as control devices shall not be considered recovery operations equipment.

*Residual* is defined in § 63.111, except that when the definition in § 63.111 uses the term "Table 9 compounds," the term "organic HAP listed in Table 6 of subpart JJJ" shall apply for purposes of this subpart.

*Shutdown* means for purposes including, but not limited to, periodic maintenance, replacement of equipment, or repair, the cessation of operation of an affected source, a TPPU(s) within an affected source, a waste management unit or unit operation within an affected source, or equipment required or used to comply with this subpart, or the emptying or degassing of a storage vessel. For purposes of the

wastewater provisions of § 63.1330, shutdown does not include the routine rinsing or washing of equipment in batch operation between batches. For purposes of the batch process vent provisions in §§ 63.1321 through 63.1327, the cessation of equipment in batch operation is not a shutdown, unless the equipment undergoes maintenance, is replaced, or is repaired.

*Solid state polymerization process* means a unit operation which, through the application of heat, furthers the polymerization (*i.e.*, increases the intrinsic viscosity) of polymer chips.

*Start-up* means the setting into operation of an affected source, a TPPU(s) within an affected source, a waste management unit or unit operation within an affected source, or equipment required or used to comply with this subpart, or a storage vessel after emptying and degassing. For both continuous and batch processes, start-up includes initial start-up and operation solely for testing equipment. For both continuous and batch processes, start-up does not include the recharging of equipment in batch operation. For continuous processes, start-up includes transitional conditions due to changes in product for flexible operation units. For batch processes, start-up does not include transitional conditions due to changes in product for flexible operation units.

*Steady-state conditions* means that all variables (temperatures, pressures, volumes, flow rates, *etc.*) in a process do not vary significantly with time; minor fluctuations about constant mean values may occur.

*Storage vessel* means a tank or other vessel that is used to store liquids that contain one or more organic HAP. Storage vessels do 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 38 cubic meters;

(4) Vessels and equipment storing and/or handling material that contains no organic HAP and/or organic HAP as impurities only;

(5) Wastewater storage tanks; and

(6) Surge control vessels and bottoms receivers.

*Styrene acrylonitrile resin (SAN)* means copolymers consisting primarily of styrene and acrylonitrile monomer units.

*Supplemental combustion air* means the air that is added to a vent stream after the vent stream leaves the unit operation. Air that is part of the vent stream as a result of the nature of the unit operation is not considered supplemental combustion air. Air required to operate combustion device burner(s) is not considered supplemental combustion air. Air required to ensure the proper operation of catalytic oxidizers, to include the intermittent addition of air upstream of the catalyst bed to maintain a minimum threshold flow rate through the catalyst bed or to avoid excessive temperatures in the catalyst bed, is not considered to be supplemental combustion air.

*Suspension process* means a polymerization process where the monomer(s) is in a state of suspension, with the help of suspending agents, in a medium other than water (typically an organic solvent). The resulting polymers are not soluble in the reactor medium.

*Thermoplastic product* means one of the following types of products:

(1) ABS latex;

(2) ABS using a batch emulsion process;

(3) ABS using a batch suspension process;

(4) ABS using a continuous emulsion process;

(5) ABS using a continuous mass process;

(6) ASA/AMSAN;

(7) EPS;

(8) MABS;

(9) MBS;

(10) nitrile resin;

(11) PET using a batch dimethyl terephthalate process;

(12) PET using a batch terephthalic acid process;

(13) PET using a continuous dimethyl terephthalate process;

(14) PET using a continuous terephthalic acid process;

(15) PET using a continuous terephthalic acid high viscosity multiple end finisher process;

(16) Polystyrene resin using a batch process;

(17) Polystyrene resin using a continuous process;

(18) SAN using a batch process; or

(19) SAN using a continuous process.

*Thermoplastic product process unit (TPPU)* means a collection of equipment assembled and connected by hard-piping or ductwork, used to process raw materials and to manufacture a thermoplastic product as its primary product. This collection of equipment includes unit operations; recovery operations equipment, process vents; equipment identified in § 63.149; storage vessels, as determined in § 63.1310(g); and the equipment that is subject to the equipment leak provisions as specified in § 63.1331. Utilities, lines and equipment not containing process fluids, and other non-process lines, such as heating and cooling systems which do not combine their materials with those in the processes they serve, are not part of the thermoplastic product process unit. A thermoplastic product process unit consists of more than one unit operation.

*Total organic compounds (TOC)* means those compounds excluding methane and ethane measured according to the procedures of Method 18 or Method 25A, 40 CFR part 60, appendix A.

*Total resource effectiveness index value or TRE index value* means a measure of the supplemental total resource requirement per unit reduction organic HAP associated with a continuous process vent stream, based on vent stream flow rate, emission rate of organic HAP, net heating value, and corrosion properties (whether or not the continuous process vent stream contains halogenated compounds), as quantified by the equations given under § 63.115.

*Vent stream,* as used in reference to batch process vents, continuous process vents, and aggregate batch vent streams, means the emissions from one or more process vents.

*Waste management unit* is defined in § 63.111, except that where the definition in § 63.111 uses the term "chemical manufacturing process unit," the term "TPPU" shall apply for purposes of this subpart.

*Wastewater* means water that:

(1) Contains either:

(i) An annual average concentration of organic HAP listed on Table 6 of this subpart, except for ethylene glycol, of at least 5 parts per million by weight and has an annual average flow rate of 0.02 liter per minute or greater; or

(ii) An annual average concentration of organic HAP listed on Table 6 of this subpart, except for ethylene glycol, of at least 10,000 parts per million by weight at any flow rate; and

(2) Is discarded from a TPPU that is part of an affected source. Wastewater is process wastewater or maintenance wastewater.

*Wastewater stream* means a stream that contains wastewater as defined in this section.

**[40 CFR 63.1313]**

**Emission standards.**

(a) Except as allowed under paragraphs (b) through (d) of this section, the owner or operator of an existing or new affected source shall comply with the provisions in:

(1) Section 63.1314 for storage vessels;

(2) Section 63.1315, or §§ 63.1316 through 63.1320, as appropriate, for continuous process vents;

(3) Section 63.1321 for batch process vents;

(4) Section 63.1328 for heat exchange systems;

(5) Section 63.1329 for process contact cooling towers;

(6) Section 63.1330 for wastewater;

(7) Section 63.1331 for equipment leaks;

(8) Section 63.1333 for additional test methods and procedures;

(9) Section 63.1334 for parameter monitoring levels and excursions; and

(10) Section 63.1335 for general recordkeeping and reporting requirements.

(b) When emissions of different kinds (*i.e.,* emissions from continuous process vents subject to either § 63.1315 or §§ 63.1316 through 63.1320, batch process vents, aggregate batch vent streams, storage vessels, process wastewater, and/or in-process equipment subject to § 63.149) are combined, and at least one of the emission streams would be classified as Group 1 in the absence of combination with other emission streams, the owner or operator shall comply with the requirements of either paragraph (b)(1) or (b)(2) of this section, as appropriate. For purposes of this paragraph (b), combined emission streams containing one or more batch process vents and containing one or more continuous process vents subject to § 63.1315, § 63.1316(b)(1)(i)(A), § 63.1316(b)(1)(ii), § 63.1316(b)(2)(i), § 63.1316(b)(2)(ii), or § 63.1316(c)(1), excluding § 63.1316(c)(1)(ii), may comply with either paragraph (b)(1) or (b)(2) of this section, as appropriate. For purposes of this paragraph (b), the owner or operator of an affected source with combined emission streams containing one or more batch process vents but not containing one or more continuous process vents subject to § 63.1315, § 63.1316(b)(1)(i)(A), § 63.1316(b)(1)(ii), § 63.1316(b)(2)(i), § 63.1316(b)(2)(ii), or § 63.1316(c)(1), excluding § 63.1316(c)(1)(ii), shall comply with paragraph (b)(3) of this section.

(1) Comply with the applicable requirements of this subpart for each kind of emission in the stream as specified in paragraphs (a)(1) through (a)(7) of this section.

(2) Comply with the first set of requirements, identified in paragraphs (b)(2)(i) through (b)(2)(vi) of this section, which applies to any individual emission stream that is included in the combined stream, where either that emission stream would be classified as Group 1 in the absence of combination with other

emission streams, or the owner or operator chooses to consider that emission stream to be Group 1 for purposes of this paragraph. Compliance with the first applicable set of requirements identified in paragraphs (b)(2)(i) through (b)(2)(vi) of this section constitutes compliance with all other requirements in paragraphs (b)(2)(i) through (b)(2)(vi) of this section applicable to other types of emissions in the combined stream.

(i) The requirements of this subpart for Group 1 continuous process vents subject to § 63.1315, including applicable monitoring, recordkeeping, and reporting;

(ii) The requirements of § 63.1316(b)(1)(i)(A), § 63.1316(b)(1)(ii), § 63.1316(b)(2)(i), § 63.1316(b)(2)(ii), or § 63.1316(c)(1), excluding § 63.1316(c)(1)(ii), as appropriate, for control of emissions from continuous process vents subject to the control requirements of § 63.1316, including applicable monitoring, recordkeeping, and reporting requirements;

(iii) The requirements of § 63.119(e), as specified in § 63.1314, for control of emissions from Group 1 storage vessels, including applicable monitoring, recordkeeping, and reporting;

(iv) The requirements of § 63.139, as specified in § 63.1330, for control devices used to control emissions from waste management units, including applicable monitoring, recordkeeping, and reporting;

(v) The requirements of § 63.139, as specified in § 63.1330, for closed vent systems for control of emissions from in-process equipment subject to § 63.149, as specified in § 63.1330, including applicable monitoring, recordkeeping, and reporting; or

(vi) The requirements of this subpart for aggregate batch vent streams subject to § 63.1321(c), including applicable monitoring, recordkeeping, and reporting.

(3) The owner or operator of an affected source with combined emission streams containing one or more batch process vents but not containing one or more continuous process vents subject to § 63.1315, § 63.1316(b)(1)(i)(A), § 63.1316(b)(1)(ii), § 63.1316(b)(2)(i), § 63.1316(b)(2)(ii), or § 63.1316(c)(1), excluding § 63.1316(c)(1)(ii), shall comply with paragraph (b)(3)(i) and (b)(3)(ii) of this section.

(i) The owner or operator of the affected source shall comply with § 63.1321 for the batch process vent(s).

(ii) The owner or operator of the affected source shall comply with either paragraph (b)(1) or (b)(2) of this section, as appropriate, for the remaining emission streams.

(c) Instead of complying with §§ 63.1314, 63.1315, 63.1316 through 63.1320, 63.1321, and 63.1330, the owner or operator of an existing affected source may elect to control any or all of the storage vessels, batch process vents, aggregate batch vent streams, continuous process vents, and wastewater streams and associated waste management units within the affected source to different levels using an emissions averaging compliance approach that uses the procedures specified in § 63.1332. The restrictions concerning which emission points may be included in an emissions average, including how many emission points may be included, are specified in § 63.1332(a)(1). An owner or operator electing to use emissions averaging shall still comply with the provisions of §§ 63.1314, 63.1315, 63.1316 through 63.1320, 63.1321, and 63.1330 for affected source emission points not included in the emissions average.

(d) A State may decide not to allow the use of the emissions averaging compliance approach specified in paragraph (c) of this section.

**[40 CFR 63.1314]**

**Storage vessel provisions.**

(a) This section applies to each storage vessel that is assigned to an affected source, as determined by § 63.1310(g). Except as provided in paragraphs (b) through (d) of this section, the owner or operator of an affected source shall comply with the requirements of §§ 63.119 through 63.123 and 63.148 for those storage vessels, with the differences noted in paragraphs (a)(1) through (a)(17) of this section for the purposes of this subpart.

(1) When the term "storage vessel" is used in §§ 63.119 through 63.123, the definition of this term in § 63.1312 shall apply for the purposes of this subpart.

(2) When the term "Group 1 storage vessel" is used in §§ 63.119 through 63.123, the definition of this term in § 63.1312 shall apply for the purposes of this subpart.

(3) When the term "Group 2 storage vessel" is used in §§ 63.119 through 63.123, the definition of this term in § 63.1312 shall apply for the purposes of this subpart.

(4) When the emissions averaging provisions of § 63.150 are referred to in §§ 63.119 and 63.123, the emissions averaging provisions contained in § 63.1332 shall apply for the purposes of this subpart.

(5) When December 31, 1992, is referred to in § 63.119, March 29, 1995 shall apply instead, for the purposes of this subpart.

(6) When April 22, 1994, is referred to in § 63.119, June 19, 2000 shall apply instead, for the purposes of this subpart.

(7) Each owner or operator of an affected source shall comply with this paragraph (a)(7) instead of § 63.120(d)(1)(ii) for the purposes of this subpart. If the control device used to comply with § 63.119(e) is also used to comply with any of the requirements found in § 63.1315, § 63.1316, § 63.1322, or § 63.1330, the performance test required in or accepted by the applicable requirements of §§ 63.1315, 63.1316, 63.1322, and 63.1330 is acceptable for demonstrating compliance with § 63.119(e) for the purposes of this subpart. The owner or operator is not required to prepare a design evaluation for the control device as described in § 63.120(d)(1)(i), if the performance test meets the criteria specified in paragraphs (a)(7)(i) and (a)(7)(ii) of this section.

(i) 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 § 63.119(e)(2), as applicable; and

(ii) The performance test is submitted as part of the Notification of Compliance Status required by § 63.1335(e)(5).

(8) When the term "range" is used in §§ 63.120(d)(3), 63.120(d)(5), and 63.122(g)(2), the term "level" shall apply instead, for the purposes of this subpart.

(9) For purposes of this subpart, the monitoring plan required by § 63.120(d)(2) shall specify for which control devices the owner or operator has selected to follow the procedures for continuous monitoring specified in § 63.1334. For those control devices for which the owner or operator has selected to not follow the procedures for continuous monitoring specified in § 63.1334, the monitoring plan shall include 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), as specified in § 63.120(d)(2)(i).

(10) For purposes of this subpart, the monitoring plan required by § 63.122(b) shall be included in the Notification of Compliance Status required by § 63.1335(e)(5).

(11) When the Notification of Compliance Status requirements contained in § 63.152(b) are referred to in §§ 63.120, 63.122, and 63.123, the Notification of Compliance Status requirements contained in § 63.1335(e)(5) shall apply for the purposes of this subpart.

(12) When the Periodic Report requirements contained in § 63.152(c) are referred to in §§ 63.120 and 63.122, the Periodic Report requirements contained in § 63.1335(e)(6) shall apply for the purposes of this subpart.

(13) When other reports as required in § 63.152(d) are referred to in § 63.122, the reporting requirements contained in § 63.1335(e)(7) shall apply for the purposes of this subpart.

(14) When the Initial Notification requirements contained in § 63.151(b) are referred to in § 63.122, the owner or operator of an affected source subject to this subpart need not comply for the purposes of this subpart.

(15) When the determination of equivalence criteria in § 63.102(b) is referred to in § 63.121(a), the provisions in § 63.6(g) shall apply for the purposes of this subpart.

(16) When § 63.119(a) requires compliance according to the schedule provisions in § 63.100, owners and operators of affected sources shall instead comply with the requirements in §§ 63.119(a)(1) through 63.119(a)(4) by the compliance date for storage vessels, which is specified in § 63.1311.

(17) In § 63.120(e)(1), instead of the reference to § 63.11(b), the requirements of § 63.1333(e) shall apply.

(b) Owners or operators of Group 1 storage vessels that are assigned to a new affected source producing SAN using a continuous process shall control emissions to the levels indicated in paragraphs (b)(1) and (b)(2) of this section.

(1) For storage vessels with capacities greater than or equal to 2,271 cubic meters (m 3) containing a liquid mixture having a vapor pressure greater than or equal to 0.5 kilopascal (kPa) but less than 0.7 kPa, emissions shall be controlled by at least 90 percent relative to uncontrolled emissions.

(2) For storage vessels with capacities less than 151 m3 containing a liquid mixture having a vapor pressure greater than or equal to 10 kPa, emissions shall be controlled by at least 98 percent relative to uncontrolled emissions.

(3) For all other storage vessels designated as Group 1 storage vessels, emissions shall be controlled to the level designated in § 63.119.

(c) Owners or operators of Group 1 storage vessels that are assigned to a new or existing affected source producing ASA/AMSAN shall control emissions by at least 98 percent relative to uncontrolled emissions.

(d) The provisions of this subpart do not apply to storage vessels containing ethylene glycol at existing or new affected sources and storage vessels containing styrene at existing affected sources.

**[40 CFR 63.1315]**

**Continuous process vents provisions.**

(a) For each continuous process vent located at an affected source, the owner or operator shall comply with the requirements of §§ 63.113 through 63.118, with the differences noted in paragraphs (a)(1) through (a)(18) of this section for the purposes of this subpart, except as provided in paragraphs (b) through (e) of this section.

(1) When the term "process vent" is used in §§ 63.113 through 63.118, the term "continuous process vent," and the definition of this term in § 63.1312 shall apply for the purposes of this subpart.

(2) When the term "Group 1 process vent" is used in §§ 63.113 through 63.118, the term "Group 1 continuous process vent," and the definition of this term in § 63.1312 shall apply for the purposes of this subpart.

(3) When the term "Group 2 process vent" is used in §§ 63.113 through 63.118, the term "Group 2 continuous process vent," and the definition of this term in § 63.1312 shall apply for the purposes of this subpart.

(4) When December 31, 1992 is referred to in § 63.113, apply the date March 29, 1995, for the purposes of this subpart.

(5) When § 63.151(f), alternative monitoring parameters, and § 63.152(e), submission of an operating permit, are referred to in §§ 63.114(c) and 63.117(e), § 63.1335(f), alternative monitoring parameters, and § 63.1335(e)(8), submission of an operating permit, respectively, shall apply for the purposes of this subpart.

(6) When the Notification of Compliance Status requirements contained in § 63.152(b) are referred to in §§ 63.114, 63.117, and 63.118, the Notification of Compliance Status requirements contained in § 63.1335(e)(5) shall apply for the purposes of this subpart.

(7) When the Periodic Report requirements contained in § 63.152(c) are referred to in §§ 63.117 and 63.118, the Periodic Report requirements contained in § 63.1335(e)(6) shall apply for the purposes of this subpart.

(8) When the definition of excursion in § 63.152(c)(2)(ii)(A) is referred to in § 63.118(f)(2), the definition of excursion in § 63.1334(f) of this subpart shall apply for the purposes of this subpart.

(9) When § 63.114(e) or § 63.117(f) specifies that an owner or operator shall submit the information required in § 63.152(b) in order to establish the parameter monitoring range, the owner or operator of an affected source shall comply with the provisions of § 63.1335(e)(5) for purposes of reporting information related to establishment of the parameter monitoring level for purposes of this subpart. Further, the term "level" shall apply when the term "range" is used in §§ 63.114, 63.117, and 63.118.

(10) When reports of process changes are required under § 63.118(g), (h), (i), or (j), paragraphs (a)(10)(i) through (a)(10)(iv) of this section shall apply for the purposes of this subpart. In addition, for the purposes of this subpart, paragraph (a)(10)(v) of this section applies, and § 63.118(k) does not apply to owners or operators of affected sources.

(i) For the purposes of this subpart, whenever a process change, as defined in § 63.115(e), is made that causes a Group 2 continuous process vent to become a Group 1 continuous process vent, the owner or operator shall submit a report within 180 days after the process change is made or with the next Periodic Report, whichever is later. A description of the process change shall be submitted with the report of the

process change, and the owner or operator of the affected source shall comply with the Group 1 provisions in §§ 63.113 through 63.118 in accordance with § 63.1310(i)(2)(ii) or (i)(2)(iii), as applicable.

(ii) Whenever a process change, as defined in § 63.115(e), is made that causes a Group 2 continuous process vent with a TRE greater than 4.0 to become a Group 2 continuous process vent with a TRE less than 4.0, the owner or operator shall submit a report within 180 days after the process change is made or with the next Periodic Report, whichever is later. A description of the process change shall be submitted with the report of the process change, and the owner or operator shall comply with the provisions in § 63.113(d) by the dates specified in § 63.1311.

(iii) Whenever a process change, as defined in § 63.115(e), is made that causes a Group 2 continuous process vent with a flow rate less than 0.005 standard cubic meter per minute to become a Group 2 continuous process vent with a flow rate of 0.005 standard cubic meter per minute or greater and a TRE index value less than or equal to 4.0, the owner or operator shall submit a report within 180 days after the process change is made or with the next Periodic Report, whichever is later. A description of the process change shall be submitted with the report of the process change, and the owner or operator shall comply with the provisions in § 63.113(d) by the dates specified in § 63.1311.

(iv) Whenever a process change, as defined in § 63.115(e), is made that causes a Group 2 continuous process vent with an organic HAP concentration less than 50 parts per million by volume to become a Group 2 continuous process vent with an organic HAP concentration of 50 parts per million by volume or greater and a TRE index value less than or equal to 4.0, the owner or operator shall submit a report within 180 days after the process change is made or with the next Periodic Report, whichever is later. A description of the process change shall be submitted with the report of the process change, and the owner or operator shall comply with the provisions in § 63.113(d) by the dates specified in § 63.1311.

(v) The owner or operator is not required to submit a report of a process change if one of the conditions listed in paragraphs (a)(10)(v)(A), (a)(10)(v)(B), (a)(10)(v)(C), or (a)(10)(v)(D) of this section is met.

(A) The process change does not meet the definition of a process change in § 63.115(e);

(B) The vent stream flow rate is recalculated according to § 63.115(e) and the recalculated value is less than 0.005 standard cubic meter per minute;

(C) The organic HAP concentration of the vent stream is recalculated according to § 63.115(e) and the recalculated value is less than 50 parts per million by volume; or

(D) The TRE index value is recalculated according to § 63.115(e) and the recalculated value is greater than 4.0, or for the affected sources producing methyl methacrylate butadiene styrene resin the recalculated value is greater than 6.7.

(11) When the provisions of § 63.116(c)(3) and (c)(4) specify that Method 18, 40 CFR part 60, appendix A shall be used, Method 18 or Method 25A, 40 CFR part 60, appendix A may be used for the purposes of this subpart. The use of Method 25A, 40 CFR part 60, appendix A shall conform with the requirements in paragraphs (a)(11)(i) and (a)(11)(ii) of this section.

(i) The organic HAP used as the calibration gas for Method 25A, 40 CFR part 60, appendix A shall be the single organic HAP representing the largest percent by volume of the emissions.

(ii) The use of Method 25A, 40 CFR part 60, appendix A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(12) When § 63.118, periodic reporting and recordkeeping requirements, refers to § 63.152(f), the recordkeeping requirements in § 63.1335(d) shall apply for purposes of this subpart.

(13) If a batch process vent or aggregate batch vent stream is combined with a continuous process vent, the owner or operator of the affected source containing the combined vent stream shall comply with paragraph (a)(13)(i); with paragraph (a)(13)(ii) and with paragraph (a)(13)(iii) or (iv); or with paragraph (a)(13)(v) of this section, as appropriate.

(i) If a batch process vent or aggregate batch vent stream is combined with a Group 1 continuous process vent prior to the combined vent stream being routed to a control device, the owner or operator of the affected source containing the combined vent stream shall comply with the requirements in paragraph (a)(13)(i)(A) or (B) of this section.

(A) All requirements for a Group 1 process vent stream in §§ 63.113 through 63.118, except as otherwise provided in this section. As specified in § 63.1333(a)(1), performance tests shall be conducted at maximum representative operating conditions. For the purpose of conducting a performance test on a combined vent stream, maximum representative operating conditions shall be when batch emission episodes are occurring that result in the highest organic HAP emission rate (for the combined vent stream) that is achievable during one of the periods listed in § 63.1333(a)(1)(i) or § 63.1333(a)(1)(ii), without causing any of the situations described in paragraphs (a)(13)(i)(A)(*1*) through (*3*) to occur.

(*1*) Causing damage to equipment.

(*2*) Necessitating that the owner or operator make product that does not meet an existing specification for sale to a customer; or

(*3*) Necessitating that the owner or operator make product in excess of demand.

(B) Comply with the provisions in § 63.1313(b)(1), as allowed under § 63.1313(b).

(ii) If a batch process vent or aggregate batch vent stream is combined with a continuous process vent prior to the combined vent stream being routed to a recovery device, the TRE index value for the combined vent stream shall be calculated at the exit of the last recovery device. The TRE shall be calculated during periods when one or more batch emission episodes are occurring that result in the highest organic HAP emission rate (in the combined vent stream that is being routed to the recovery device) that is achievable during the 6-month period that begins 3 months before and ends 3 months after the TRE calculation, without causing any of the situations described in paragraphs (a)(13)(ii)(A) through (C) to occur.

(A) Causing damage to equipment.

(B) Necessitating that the owner or operator make product that does not meet an existing specification for sale to a customer; or

(C) Necessitating that the owner or operator make product in excess of demand.

(iii) If the combined vent stream described in paragraph (a)(10)(ii) of this section meets the requirements in paragraphs (a)(13)(iii)(A), (B), and (C) of this section, the combined vent stream shall be subject to the requirements for Group 1 process vents in §§ 63.113 through 63.118, except as otherwise provided in this section, as applicable. Performance tests for the combined vent stream shall be conducted at maximum operating conditions, as described in paragraph (a)(13)(i) of this section.

(A) The TRE index value of the combined stream is less than or equal to 1.0;

(B) The flow rate of the combined vent stream is greater than or equal to 0.005 standard cubic meter per minute; and

(C) The total organic HAP concentration is greater than or equal to 50 parts per million by volume for the combined vent stream.

(iv) If the combined vent stream described in paragraph (a)(10)(ii) of this section meets the requirements in paragraph (a)(13)(iv)(A), (B), or (C) of this section, the combined vent stream shall be subject to the requirements for Group 2 process vents in §§ 63.113 through 63.118, except as otherwise provided in this section, as applicable.

(A) The TRE index value of the combined vent stream is greater than 1.0;

(B) The flow rate of the combined vent stream is less than 0.005 standard cubic meter per minute; or

(C) The total organic HAP concentration is less than 50 parts per million by volume for the combined vent stream.

(v) If a batch process vent or aggregate batch vent stream is combined with a Group 2 continuous process vent, the owner or operator shall comply with the requirements in either paragraph (a)(13)(v)(A) or (a)(13)(v)(B) of this section.

(A) The owner or operator shall comply with the requirements in §§ 63.113 through 63.118 for Group 1 process vents; or

(B) The owner or operator shall comply with § 63.1322(e)(2) for batch process vents and aggregate batch vent streams.

(14) If any gas stream that originates outside of an affected source that is subject to this subpart is normally conducted through the same final recovery device as any continuous process vent stream subject to this subpart, the owner or operator of the affected source with the combined vent stream shall comply with all requirements in §§ 63.113 through 63.118 of subpart G of this part, except as otherwise noted in this section, as applicable.

(i) Instead of measuring the vent stream flow rate at the sampling site specified in § 63.115(b)(1), the sampling site for vent stream flow rate shall be prior to the final recovery device and prior to the point at which the gas stream that is not controlled under this subpart is introduced into the combined vent stream.

(ii) Instead of measuring total organic HAP or TOC concentrations at the sampling site specified in § 63.115(c)(1), the sampling site for total organic HAP or TOC concentration shall be prior to the final recovery device and prior to the point at which the gas stream that is not controlled under this subpart is introduced into the combined vent stream.

(iii) The efficiency of the final recovery device (determined according to paragraph (a)(14)(iv) of this section) shall be applied to the total organic HAP or TOC concentration measured at the sampling site described in paragraph (a)(14)(ii) of this section to determine the exit concentration. This exit concentration of total organic HAP or TOC shall then be used to perform the calculations outlined in § 63.115(d)(2)(iii) and § 63.115(d)(2)(iv), for the combined vent stream exiting the final recovery device.

(iv) The efficiency of the final recovery device is determined by measuring the total organic HAP or TOC concentration using Method 18 or 25A, 40 CFR part 60, appendix A, at the inlet to the final recovery device after the introduction of any gas stream that is not controlled under this subpart, and at the outlet of the final recovery device.

(15) When § 63.115(c)(3)(ii)(B) and (d)(2)(iv) and § 63.116(c)(3)(ii)(B) and (c)(4)(ii)(C) refer to Table 2 of subpart F of this part, the owner or operator is only required to consider organic HAP listed on Table 6 of this subpart for purposes of this subpart.

(16) The compliance date for continuous process vents subject to the provisions of this section is specified in § 63.1311.

(17) In § 63.116(a), instead of the reference to § 63.11(b), the requirements in § 63.1333(e) shall apply.

(18) When a combustion device is used to comply with the 20 parts per million by volume outlet concentration standard specified in § 63.113(a)(2), the correction to 3 percent oxygen is only required when supplemental combustion air is used to combust the emissions, for the purposes of this subpart. In addition, the correction to 3 percent oxygen specified in § 63.116(c)(3) and (c)(3)(iii) is only required when supplemental combustion air is used to combust the emissions, for the purposes of this subpart. Finally, when a combustion device is used to comply with the 20 parts per million by volume outlet concentration standard specified in § 63.113(a)(2), an owner or operator shall record and report the outlet concentration required in § 63.117(a)(4)(ii) and (a)(4)(iv) corrected to 3 percent oxygen when supplemental combustion air is used to combust the emissions, for the purposes of this subpart. When supplemental combustion air is not used to combust the emissions, an owner or operator may record and report the outlet concentration required in § 63.117(a)(4)(ii) and (a)(4)(iv) on an uncorrected basis or corrected to 3 percent oxygen, for the purposes of this subpart.

(b) Owners or operators of existing affected sources producing MBS shall comply with either paragraph (b)(1) or (b)(2) of this section.

(1) Comply with paragraph (a) of this section, as specified in paragraphs (b)(1)(i) and (b)(1)(ii).

(i) As specified in § 63.1312, Group 1 continuous process vents at MBS existing affected sources are those with a total resource effectiveness value less than or equal to 3.7.

(ii) When complying with this paragraph (b) and the term "TRE of 4.0" is used, or related terms indicating a TRE index value of 4.0, referred to in §§ 63.113 through 63.118, are used, the term "TRE of 6.7," shall apply instead, for the purposes of this subpart. The TRE range of 3.7 to 6.7 for continuous process vents at existing affected sources producing MBS corresponds to the TRE range of 1.0 to 4.0 for other continuous process vents, as it applies to monitoring, recordkeeping, and reporting.

(2) Not allow organic HAP emissions from the collection of continuous process vents at the affected source to be greater than 0.000590 kg organic HAP/Mg of product. Compliance with this paragraph (b)(2) shall be determined using the procedures specified in § 63.1333(b).

(c) Owners or operators of new affected sources producing SAN using a batch process shall comply with the applicable requirements in § 63.1321.

(d) Affected sources producing PET or polystyrene using a continuous process are subject to the emissions control provisions of § 63.1316, the monitoring provisions of § 63.1317, the testing and compliance demonstration provisions of § 63.1318, the recordkeeping provisions of § 63.1319, and the reporting provisions of § 63.1320. However, in some instances as specified in § 63.1316, select continuous process vents present at affected sources producing PET or polystyrene using a continuous process are subject to the provisions of this section.

(e) Owners or operators of affected sources producing ASA/AMSAN shall reduce organic HAP emissions from each continuous process vent, each batch process vent, and each aggregate batch vent stream by 98 weight-percent and shall comply with either paragraph (e)(1), (e)(2), or (e)(3), as appropriate. Where

batch process vents or aggregate batch vent streams are combined with continuous process vents, the provisions of paragraph (a)(13) of this section shall apply for the purposes of this paragraph (e).

(1) For each continuous process vent, comply with paragraph (a) of this section as specified in paragraphs (e)(1)(i) through (e)(1)(ii) of this section.

(i) For purpose of this section, each continuous process vent shall be considered to be a Group 1 continuous process vent and the owner or operator of that continuous process vent shall comply with the requirements for a Group 1 continuous process vent.

(ii) For purposes of this section, the group determination procedure required by § 63.115 shall not apply.

(2) For each batch process vent, comply with §§ 63.1321 through 63.1327 as specified in paragraphs (e)(2)(i) through (e)(2)(ii) of this section.

(i) For purpose of this section, each batch process vent shall be considered to be a Group 1 batch process vent and the owner or operator of that batch process vent shall comply with the requirements for a Group 1 batch process vent contained in §§ 63.1321 through 63.1327, except that each batch process vent shall be controlled to reduce organic HAP emissions by 98 weight-percent.

(ii) For purposes of this section, the group determination procedure required by § 63.1323 shall not apply.

(3) For each aggregate batch vent stream, comply with §§ 63.1321 through 63.1327 as specified in paragraphs (e)(3)(i) through (e)(3)(ii) of this section.

(i) For purpose of this section, each aggregate batch vent stream shall be considered to be a Group 1 aggregate batch vent stream and the owner or operator of that aggregate batch vent stream shall comply with the requirements for a Group 1 aggregate batch vent stream contained in §§ 63.1321 through 63.1327, except that each aggregate batch vent stream shall be controlled to reduce organic HAP emissions by 98 weight-percent.

(ii) For purposes of this section, the group determination procedure required by § 63.1323 shall not apply.

**[40 CFR 63.1316]**

**PET and polystyrene affected sources -- emissions control provisions.**

(a) The owner or operator of an affected source producing PET using a continuous process shall comply with paragraph (b) of this section. The owner or operator of an affected source producing polystyrene using a continuous process shall comply with paragraph (c) of this section. As specified in paragraphs (b) and (c) of this section, owners or operators shall comply with § 63.1315 for certain continuous process vents and with § 63.1321 for all batch process vents. The owner or operator of an affected source producing PET using a batch process or producing polystyrene using a batch process shall comply with § 63.1315 for continuous process vents and with § 63.1321 for batch process vents, instead of the provisions of § 63.1316 through 63.1320.

(b) The owner or operator of an affected source producing PET using a continuous process shall comply with the requirements specified in paragraphs (b)(1) or (b)(2) of this section, as appropriate, and are not required to comply with the requirements specified in 40 CFR part 60, subpart DDD. Compliance can be based on either organic HAP or TOC.

(1) The owner or operator of an affected source producing PET using a continuous dimethyl terephthalate process shall comply with paragraphs (b)(1)(i) through (b)(1)(iv) of this section.

(i) The owner or operator of an existing affected source with organic HAP emissions greater than 0.12 kg organic HAP per Mg of product from continuous process vents in the collection of material recovery sections (*i.e.,* methanol recovery) within the affected source shall comply with either paragraph (b)(1)(i)(A), (b)(1)(i)(B), or (b)(1)(i)(C) of this section. Emissions from continuous process vents in the collection of material recovery sections within the affected source shall be determined by the procedures specified in § 63.1318(b). The owner or operator of a new affected source shall comply with either paragraph (b)(1)(i)(A), (b)(1)(i)(B), or (b)(1)(i)(C) of this section.

(A) Organic HAP emissions from all continuous process vents in each individual material recovery section shall, as a whole, be no greater than 0.018 kg organic HAP per Mg of product from the associated TPPU(s); or alternatively, organic HAP emissions from all continuous process vents in the collection of material recovery sections within the affected source shall, as a whole, be no greater than 0.018 kg organic HAP per Mg product from all associated TPPU(s);

(B) As specified in § 63.1318(d), the owner or operator shall maintain the daily average outlet gas stream temperature from each final condenser in a material recovery section at a temperature of +3 EC (+37 EF) or less (i.e., colder); or

(C) Comply with paragraph (b)(1)(v) of this section.

(ii) Limit organic HAP emissions from continuous process vents in the collection of polymerization reaction sections within the affected source by complying with either paragraph (b)(1)(ii)(A) or (b)(1)(ii)(B) of this section.

(A) Organic HAP emissions from all continuous process vents in each individual polymerization reaction section (including emissions from any equipment used to further recover ethylene glycol, but excluding emissions from process contact cooling towers) shall, as a whole, be no greater than 0.02 kg organic HAP per Mg of product from the associated TPPU(s); or alternatively, organic HAP emissions from all continuous process vents in the collection of polymerization reaction sections within the affected source shall, as a whole, be no greater than 0.02 kg organic HAP per Mg product from all associated TPPU(s); or

(B) Comply with paragraph (b)(1)(v) of this section.

(iii) Continuous process vents not included in a material recovery section, as specified in paragraph (b)(1)(i) of this section, and not included in a polymerization reaction section, as specified in paragraph (b)(1)(ii) of this section, shall comply with § 63.1315.

(iv) Batch process vents shall comply with § 63.1321.

(v) Comply with one of the following:

(A) Reduce the emissions in a combustion device to achieve 98 weight percent reduction or to achieve a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent. If an owner or operator elects to comply with the 20 ppmv standard, the concentration shall include a correction to 3 percent oxygen only when supplemental combustion air is used to combust the emissions;

(B) Combust the emissions in a boiler or process heater with a design heat input capacity of 150 million Btu/hr or greater by introducing the emissions into the flame zone of the boiler or process heater; or

(C) Combust the emissions in a flare that complies with the requirements of § 63.1333(e).

(2) The owner or operator of an affected source producing PET using a continuous terephthalic acid process shall comply with paragraphs (b)(2)(i) through (b)(2)(iv) of this section.

(i) Limit organic HAP emissions from continuous process vents in the collection of raw material preparation sections within the affected source by complying with either paragraph (b)(2)(i)(A) or (b)(2)(i)(B) of this section.

(A) Organic HAP emissions from all continuous process vents associated with the esterification vessels in each individual raw materials preparation section shall, as a whole, be no greater than 0.04 kg organic HAP per Mg of product from the associated TPPU(s); or alternatively, organic HAP emissions from all continuous process vents associated with the esterification vessels in the collection of raw material preparation sections within the affected source shall, as a whole, be no greater than 0.04 kg organic HAP per Mg of product from all associated TPPU(s). Other continuous process vents (*i.e.*, those not associated with the esterification vessels) in the collection of raw materials preparation sections within the affected source shall comply with § 63.1315; or

(B) Comply with paragraph (b)(2)(v) of this section.

(ii) Limit organic HAP emissions from continuous process vents in the collection of polymerization reaction sections within the affected source by complying with either paragraph (b)(2)(ii)(A) or (b)(2)(ii)(B) of this section.

(A) Organic HAP emissions from all continuous process vents in each individual polymerization reaction section (including emissions from any equipment used to further recover ethylene glycol, but excluding emissions from process contact cooling towers) shall, as a whole, be no greater than 0.02 kg organic HAP per Mg of product from the associated TPPU(s); or alternatively, organic HAP emissions from all continuous process vents in the collection of polymerization reaction sections within the affected source shall, as a whole, be no greater than 0.02 kg organic HAP per Mg of product from all associated TPPU(s); or

(B) Comply with paragraph (b)(2)(v) of this section.

(iii) Continuous process vents not included in a raw materials preparation section, as specified in paragraphs (b)(2)(i) of this section, and not included in a polymerization reaction section, as specified in paragraph (b)(2)(ii) of this section, shall comply with § 63.1315.

(iv) Batch process vents shall comply with § 63.1321.

(v) Comply with one of the following:

(A) Reduce the emissions in a combustion device to achieve 98 weight percent reduction or to achieve a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent. If an owner or operator elects to comply with the 20 ppmv standard, the concentration shall include a correction to 3 percent oxygen only when supplemental combustion air is used to combust the emissions;

(B) Combust the emissions in a boiler or process heater with a design heat input capacity of 150 million Btu/hr or greater by introducing the emissions into the flame zone of the boiler or process heater; or

(C) Combust the emissions in a flare that complies with the requirements of § 63.1333(e).

(c) The owner or operator of an affected source producing polystyrene resin using a continuous process shall comply with the requirements specified in paragraphs (c)(1) through (c)(3) of this section, as appropriate, instead of the requirements specified in 40 CFR part 60, subpart DDD. Compliance can be based on either organic HAP or TOC.

(1) Limit organic HAP emissions from continuous process vents in the collection of material recovery sections within the affected source by complying with either paragraph (c)(1)(i), (c)(1)(ii), or (c)(1)(iii) of this section.

(i) Organic HAP emissions from all continuous process vents in each individual material recovery section shall, as a whole, be no greater than 0.0036 kg organic HAP per Mg of product from the associated TPPU(s); or alternatively, organic HAP emissions from all continuous process vents in the collection of material recovery sections within the affected source shall, as a whole, be no greater than 0.0036 kg organic HAP per Mg of product from all associated TPPU(s);

(ii) As specified in § 63.1318(d), the owner or operator shall maintain the daily average outlet gas stream temperature from each final condenser in a material recovery section at a temperature of !-25 EC (!-13 EF) or less (*i.e.,* colder); or

(iii) Comply with one of the following:

(A) Reduce the emissions in a combustion device to achieve 98 weight percent reduction or to achieve a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent. If an owner or operator elects to comply with the 20 ppmv standard, the concentration shall include a correction to 3 percent oxygen only when supplemental combustion air is used to combust the emissions;

(B) Combust the emissions in a boiler or process heater with a design heat input capacity of 150 million Btu/hr or greater by introducing the emissions into the flame zone of the boiler or process heater; or

(C) Combust the emissions in a flare that complies with the requirements of § 63.1333(e).

(2) Limit organic HAP emissions from continuous process vents not included in a material recovery section, as specified in paragraph (c)(1)(i) of this section, by complying with § 63.1315.

(3) Batch process vents shall comply with § 63.1321.

**[40 CFR 63.1317]**

**PET and polystyrene affected sources -- monitoring provisions.**

Continuous process vents using a control or recovery device to comply with § 63.1316 shall comply with the applicable monitoring provisions specified for continuous process vents in § 63.1315(a), except that references to group determinations (*i.e.,* total resource effectiveness) do not apply and owners or operators are not required to comply with § 63.113.

**[40 CFR 63.1318]**

**PET and polystyrene affected sources -- testing and compliance demonstration provisions.**

(a) Except as specified in paragraphs (b) through (d) of this section, continuous process vents using a control or recovery device to comply with § 63.1316 shall comply with the applicable testing and compliance provisions for continuous process vents specified in § 63.1315(a) except that, for purposes of this paragraph (a), references to group determinations (i.e., total resource effectiveness) do not apply and owners or operators are not required to comply with § 63.113.

(b) *PET Affected Sources Using a Dimethyl Terephthalate Process -- Applicability Determination Procedure.* Owners or operators shall calculate organic HAP emissions from the collection of material recovery sections at an existing affected source producing PET using a continuous dimethyl terephthalate

process to determine whether § 63.1316(b)(1)(i) is applicable using the procedures specified in either paragraph (b)(1) or (b)(2) of this section.

(1) Use Equation 1 of this subpart to determine mass emissions per mass product as specified in paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

$$ER = \sum_{i=1}^{n} \frac{E_i}{\left(0.001\ P_p\right)} \qquad [Eq.\ 1]$$

where:

ER=Emission rate of total organic HAP or TOC, kg/Mg product.

Ei=Emission rate of total organic HAP or TOC in continuous process vent i, kg/hr.

Pp=The rate of polymer produced, kg/hr.

n=Number of continuous process vents in the collection of material recovery sections at the affected source.

0.001=Conversion factor, kg to Mg.

(i) The mass emission rate for each continuous process vent, Ei, shall be determined according to the procedures specified in § 63.116(c)(4). The sampling site for determining whether § 63.1316(b)(1)(i) is applicable shall be at the outlet of the last recovery or control device. When the provisions of § 63.116(c)(4) specify that Method 18, 40 CFR part 60, appendix A shall be used, Method 18 or Method 25A, 40 CFR part 60, appendix A may be used for the purposes of this subpart. The use of Method 25A, 40 CFR part 60, appendix A shall comply with paragraphs (b)(1)(i)(A) and (b)(1)(i)(B) of this section.

(A) The organic HAP used as the calibration gas for Method 25A, 40 CFR part 60, appendix A shall be the single organic HAP representing the largest percent by volume of the emissions.

(B) The use of Method 25A, 40 CFR part 60, appendix A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(ii) The rate of polymer produced, Pp (kg/hr), shall be determined by dividing the weight (kg) of polymer pulled from the process line during the performance test by the number of hours taken to perform the performance test. The weight of polymer pulled shall be determined by direct measurement or by an alternate methodology, such as materials balance. If an alternate methodology is used, a description of the methodology, including all procedures, data, and assumptions shall be submitted as part of the Notification of Compliance Status required by § 63.1335(e)(5).

(2) Use engineering assessment, as described in § 63.1323(b)(6)(i), to demonstrate that mass emissions per mass product are less than or equal to 0.07 kg organic HAP/Mg product. If engineering assessment shows that mass emissions per mass product are greater than 0.07 kg organic HAP/Mg product and the owner or operator wishes to demonstrate that mass emissions per mass product are less than the threshold emission rate of 0.12 kg organic HAP/Mg product, the owner or operator shall use the procedures specified in paragraph (b)(1) of this section.

(c) *Compliance with Mass Emissions per Mass Product Standards.* Owners or operators complying with § 63.1316(b)(1)(i)(A), (b)(1)(ii), (b)(2)(i), (b)(2)(ii), and (c)(1)(i) shall demonstrate compliance with the

mass emissions per mass product requirements using the procedures specified in paragraph (b)(1) of this section.

(d) *Compliance with Temperature Limits for Final Condensers.* Owners or operators complying with § 63.1316(b)(1)(i)(B) or § 63.1316(c)(1)(ii) shall demonstrate continuous compliance based on an average exit temperature determined for each operating day. Calculation of the daily average exit temperature shall follow the provisions of § 63.1335(d)(3). The provisions of § 63.1334(f) and (g) shall apply for the purposes of determining whether or not an owner or operator is to be deemed out of compliance for a given operating day.

**[40 CFR 63.1319]**

**PET and polystyrene affected sources -- recordkeeping provisions.**

(a) Except as specified in paragraphs (b) and (c) of this section, owners or operators using a control or recovery device to comply with § 63.1316 shall comply with the applicable recordkeeping provisions specified in § 63.1315(a), except that, for the purposes of this paragraph (a), references to group determinations (*i.e.,* total resource effectiveness) do not apply, and owners or operators are not required to comply with § 63.113.

(b) *Records Demonstrating Compliance With the Applicability Determination Procedure for PET Affected Sources Using a Dimethyl Terephthalate Process.* Owners or operators complying with § 63.1316(b)(1)(i) by demonstrating that mass emissions per mass product are less than or equal to the level specified in § 63.1316(b)(1)(i) (*i.e.,* 0.12 kg organic HAP per Mg of product) shall keep the following records.

(1) Results of the mass emissions per mass product calculation specified in § 63.1318(b).

(2) Records of any change in process operation that increases the mass emissions per mass product.

(c) *Records Demonstrating Compliance with Temperature Limits for Final Condensers.* Owners or operators of continuous process vents complying with § 63.1316(b)(1)(i)(B) or § 63.1316(c)(1)(ii) shall keep records of the daily averages required by § 63.1318, per the recordkeeping provisions specified in § 63.1335(d).

**[40 CFR 63.1320]**

**PET and polystyrene affected sources -- reporting provisions.**

(a) Except as specified in paragraph (b) of this section, owners and operators using a control or recovery device to comply with § 63.1316 shall comply with the applicable reporting provisions specified in § 63.1315(a), except that, for the purposes of this paragraph (a), references to group determinations (*i.e.,* total resource effectiveness) do not apply, and owners or operators are not required to comply with § 63.113.

(b) *Reporting for PET Affected Sources Using a Dimethyl Terephthalate Process.* Owners or operators complying with § 63.1316 by demonstrating that mass emissions per mass product are less than or equal to the level specified in § 63.1316(b)(1)(i) (*i.e.,* 0.12 kg organic HAP per Mg of product) shall comply with paragraphs (b)(1) through (b)(3) of this section.

(1) Include the information specified in § 63.1319(b)(2) in each Periodic Report, required by § 63.1335(e)(6), as appropriate.

(2) Include the information specified in § 63.1319(b)(1) in the Notification of Compliance Status, required by § 63.1335(e)(5).

(3) Whenever a process change, as defined in § 63.115(e), is made that causes emissions from continuous process vents in the collection of material recovery sections (i.e., methanol recovery) within the affected source to be greater than 0.12 kg organic HAP per Mg of product, the owner or operator shall submit a report within 180 days after the process change is made or the information regarding the process change is known to the owner or operator. This report may be included in the next Periodic Report. The report shall include the information specified in § 63.1319(b)(1) and a description of the process change.

**[40 CFR 63.1321]**

**Batch process vents provisions.**

(a) *Batch process vents.* Except as specified in paragraphs (b) through (d) of this section, owners and operators of new and existing affected sources with batch process vents shall comply with the requirements in §§ 63.1322 through 63.1327. The batch process vent group status shall be determined in accordance with § 63.1323. Owners or operators of batch process vents classified as Group 1 shall comply with the reference control technology requirements for Group 1 batch process vents in § 63.1322, the monitoring requirements in § 63.1324, the performance test methods and procedures to determine compliance in § 63.1325, the recordkeeping requirements in § 63.1326, and the reporting requirements in § 63.1327. Owners or operators of all Group 2 batch process vents shall comply with the applicable reference control technology requirements in § 63.1322, the applicable recordkeeping requirements in § 63.1326, and the applicable reporting requirements in § 63.1327.

(b) *New SAN batch affected sources.* Owners and operators of new SAN affected sources using a batch process shall comply with the requirements of § 63.1322 through § 63.1327 for batch process vents and aggregate batch vent streams except as specified in paragraphs (b)(1) through (b)(2) of this section. For continuous process vents, owners and operators shall comply with the requirements of § 63.1322 through § 63.1327 except as specified in paragraph (b)(3) of this section.

(1) For batch process vents, the determination of group status (i.e., Group 1/Group 2) under § 63.1323 is not required.

(2) For batch process vents and aggregate batch vent streams, the control requirements for individual batch process vents or aggregate batch vent streams (e.g., 90 percent emission reduction) as specified in § 63.1322(a)(1), (a)(2), (b)(1), and (b)(2) shall not apply.

(3) Continuous process vents using a control or recovery device to comply with § 63.1322(a)(3) are subject to the applicable requirements in § 63.1315(a), as appropriate, except as specified in paragraphs (b)(3)(i) and (b)(3)(ii) of this section.

(i) Said continuous process vents are not subject to the group determination procedures of § 63.115 for the purposes of this subpart.

(ii) Said continuous process vents are not subject to the reference control technology provisions of § 63.113 for the purposes of this subpart.

(c) *Aggregate batch vent streams.* Aggregate batch vent streams, as defined in § 63.1312, are subject to the control requirements specified in § 63.1322(b), as well as the monitoring, testing, recordkeeping, and reporting requirements specified in §§ 63.1324 through 63.1327 for aggregate batch vent streams.

(d) Owners and operators of affected sources producing ASA/AMSAN shall comply with the provisions of § 63.1315(e).

**[40 CFR 63.1322]**

**Batch process vents -- reference control technology.**

(a) *Batch process vents.* The owner or operator of a Group 1 batch process vent, as determined using the procedures in § 63.1323, shall comply with the requirements of either paragraph (a)(1) or (a)(2) of this section, except as provided for in paragraph (a)(3) of this section. Compliance may be based on either organic HAP or TOC.

(1) For each batch process vent, reduce organic HAP emissions using a flare.

(i) The owner or operator shall comply with the requirements of § 63.1333(e) for the flare.

(ii) Halogenated batch process vents, as defined in § 63.1312, shall not be vented to a flare.

(2) For each batch process vent, reduce organic HAP emissions for the batch cycle by 90 weight percent using a control device. Owners or operators may achieve compliance with this paragraph (a)(2) through the control of selected batch emission episodes or the control of portions of selected batch emission episodes. Documentation demonstrating how the 90 weight percent emission reduction is achieved is required by § 63.1325(c)(2).

(3) The owner or operator of a new affected source producing SAN using a batch process shall reduce organic HAP emissions from the collection of batch process vents, aggregate batch vent streams, and continuous process vents by 84 weight percent. Compliance with this paragraph (a)(3) shall be demonstrated using the procedures specified in § 63.1333(c).

(b) *Aggregate batch vent streams.* The owner or operator of an aggregate batch vent stream that contains one or more Group 1 batch process vents shall comply with the requirements of either paragraph (b)(1) or (b)(2) of this section, except as provided for in paragraph (b)(3) of this section. Compliance may be based on either organic HAP or TOC.

(1) For each aggregate batch vent stream, reduce organic HAP emissions using a flare.

(i) The owner or operator shall comply with the requirements of § 63.1333(e) for the flare.

(ii) Halogenated aggregate batch vent streams, as defined in § 63.1312, shall not be vented to a flare.

(2) For each aggregate batch vent stream, reduce organic HAP emissions by 90 weight percent or to a concentration of 20 parts per million by volume, whichever is less stringent, on a continuous basis using a control device. For purposes of complying with the 20 parts per million by volume outlet concentration standard, the outlet concentration shall be calculated on a dry basis. When a combustion device is used for purposes of complying with the 20 parts per million by volume outlet concentration standard, the concentration shall be corrected to 3 percent oxygen if supplemental combustion air is used to combust the emissions. If supplemental combustion air is not used, a correction to 3 percent oxygen is not required.

(3) The owner or operator of a new affected source producing SAN using a batch process shall comply with paragraph (a)(3) of this section.

(c) *Halogenated emissions.* Halogenated Group 1 batch process vents, halogenated aggregate batch vent streams, and halogenated continuous process vents that are combusted as part of complying with paragraph (a)(2), (a)(3), (b)(2), or (b)(3) of this section, as appropriate, shall be controlled according to either paragraph (c)(1) or (c)(2) of this section.

(1) If a combustion device is used to comply with paragraph (a)(2), (a)(3), (b)(2), or (b)(3) of this section for a halogenated batch process vent, halogenated aggregate batch vent stream, or halogenated continuous process vent, said emissions exiting the combustion device shall be ducted to a halogen reduction device that reduces overall emissions of hydrogen halides and halogens by at least 99 percent before discharge to the atmosphere.

(2) A halogen reduction device may be used to reduce the halogen atom mass emission rate of said emissions to less than 3,750 kg/yr for batch process vents or aggregate batch vent streams and to less than 0.45 kilograms per hour for continuous process vents prior to venting to any combustion control device, and thus make the batch process vent, aggregate batch vent stream, or continuous process vent nonhalogenated. The nonhalogenated batch process vent, aggregate batch vent stream, or continuous process vent shall then comply with the requirements of either paragraph (a) or (b) of this section, as appropriate.

(d) If a boiler or process heater is used to comply with the percent reduction requirement specified in paragraph (a)(2), (a)(3), (b)(2), or (b)(3) of this section, the batch process vent, aggregate batch vent stream, or continuous process vent shall be introduced into the flame zone of such a device.

(e) *Combination of batch process vents or aggregate batch vent streams with continuous process vents.* If a batch process vent or aggregate batch vent stream is combined with a continuous process vent, the owner or operator shall determine whether the combined vent stream is subject to the provisions of §§ 63.1321 through 63.1327 according to paragraphs (e)(1) and (e)(2) of this section.

(1) A batch process vent or aggregate batch vent stream combined with a continuous process vent is not subject to the provisions of §§ 63.1321 through 63.1327, if the requirements in paragraph (e)(1)(i) and in either paragraph (e)(1)(ii) or (e)(1)(iii) are met.

(i) The only emissions to the atmosphere from the batch process vent or aggregate batch vent stream prior to being combined with the continuous process vent are from equipment subject to § 63.1331.

(ii) The batch process vent or aggregate batch vent stream is combined with a Group 1 continuous process vent prior to the combined vent stream being routed to a control device. In this paragraph (e)(1)(ii), the definition of control device as it relates to continuous process vents shall be used. Furthermore, the combined vent stream discussed in this paragraph (e)(1)(ii) shall be subject to § 63.1315(a)(13)(i).

(iii) The batch process vent or aggregate batch vent stream is combined with a continuous process vent prior to being routed to a recovery device. In this paragraph (e)(1)(iii), the definition of recovery device as it relates to continuous process vents shall be used. Furthermore, the combined vent stream discussed in this paragraph (e)(1)(iii) shall be subject to § 63.1315(a)(13)(ii).

(2) If the batch process vent or aggregate batch vent stream is combined with a Group 2 continuous process vent, the group status of the batch process vent shall be determined prior to its combination with the Group 2 continuous process vent, in accordance with § 63.1323, and the combined vent stream shall be subject to the requirements for aggregate batch vent streams in §§ 63.1321 through 63.1327.

(f) *Group 2 batch process vents with annual emissions greater than or equal to the level specified in § 63.1323(d).* The owner or operator of a Group 2 batch process vent with annual emissions greater than or equal to the level specified in § 63.1323(d) shall comply with the provisions of paragraph (f)(1), (f)(2), or (h) of this section.

(1) The owner or operator of an affected source shall comply with the requirements in paragraphs (f)(1)(i) through (f)(1)(iv) of this section.

(i) The owner or operator shall establish a batch mass input limitation that ensures the Group 2 batch process vent does not become a Group 1 batch process vent.

(ii) Over the course of the affected source's "year," as reported in the Notification of Compliance Status in accordance with § 63.1335(e)(5)(viii), the owner or operator shall not charge a mass of HAP or material to the batch unit operation that is greater than the level established as the batch mass input limitation.

(iii) The owner or operator shall comply with the recordkeeping requirements in § 63.1326(d)(2), and the reporting requirements in § 63.1327(a)(3), (b), and (c).

(iv) The owner or operator shall comply with § 63.1323(i) when process changes are made.

(2) Comply with the requirements of this subpart for Group 1 batch process vents.

(g) *Group 2 batch process vents with annual emissions less than the level specified in § 63.1323(d).* The owner or operator of a Group 2 batch process vent with annual emissions less than the level specified in § 63.1323(d) shall comply with paragraphs (g)(1), (g)(2), (g)(3), or (g)(4) of this section.

(1) The owner or operator of the affected source shall comply with the requirements in paragraphs (g)(1)(i) through (g)(1)(iv) of this section.

(i) The owner or operator shall establish a batch mass input limitation that ensures emissions do not exceed the level specified in § 63.1323(d).

(ii) Over the course of the affected source's "year," as reported in the Notification of Compliance Status in accordance with § 63.1335(e)(5)(viii), the owner or operator shall not charge a mass of HAP or material to the batch unit operation that is greater than the level established as the batch mass input limitation.

(iii) The owner or operator shall comply with the recordkeeping requirements in § 63.1326(d)(1), and the reporting requirements in § 63.1327(a)(2), (b), and (c).

(iv) The owner or operator of the affected source shall comply with § 63.1323(i) when process changes are made.

(2) Comply with the requirements of paragraph (f)(1) of this section;

(3) Comply with the requirements of paragraph (f)(2) of this section; or

(4) Comply with the requirements of paragraph (h) of this section.

(h) Owners or operators of Group 2 batch process vents are not required to establish a batch mass input limitation if the batch process vent is Group 2 at the conditions specified in paragraphs (h)(1) and (h)(2) of this section and if the owner or operator complies with the recordkeeping provisions in §§ 63.1326(a)(1) through (3), 63.1326(a)(9), and 63.1326(a)(4) through (6) as applicable, and the reporting requirements in § 63.1327(a)(5), (a)(6), and (b).

(1) Emissions for the single highest-HAP recipe (considering all products that are produced in the batch unit operation) are used in the group determination; and

(2) The group determination assumes that the batch unit operation is operating at the maximum design capacity of the TPPU for 12 months.

**[40 CFR 63.1323]**

**Batch process vents -- methods and procedures for group determination.**

(a) *General requirements.* Except as provided in paragraph (a)(3) of this section and in § 63.1321(b)(1), the owner or operator of batch process vents at affected sources shall determine the group status of each batch process vent in accordance with the provisions of this section. This determination may be based on either organic HAP or TOC emissions.

(1) The procedures specified in paragraphs (b) through (g) of this section shall be followed to determine the group status of each batch process vent. This determination shall be made in accordance with either paragraph (a)(1)(i) or (a)(1)(ii) of this section.

(i) An owner or operator may choose to determine the group status of a batch process vent based on the expected mix of products. For each product, emission characteristics of the single highest-HAP recipe, as defined in paragraph (a)(1)(iii) of this section, for that product shall be used in the procedures in paragraphs (b) through (i) of this section.

(ii) An owner or operator may choose to determine the group status of a batch process vent based on annualized production of the single highest-HAP recipe, as defined in paragraph (a)(1)(iii) of this section, considering all products produced or processed in the batch unit operation. The annualized production of the highest-HAP recipe shall be based exclusively on the production of the single highest-HAP recipe of all products produced or processed in the batch unit operation for a 12 month period. The production level used may be the actual production rate. It is not necessary to assume a maximum production rate (*i.e.,* 8,760 hours per year at maximum design production).

(iii) The single highest-HAP recipe for a product means the recipe of the product with the highest total mass of HAP charged to the reactor during the production of a single batch of product.

(2) The annual uncontrolled organic HAP or TOC emissions and annual average batch vent flow rate shall be determined at the exit from the batch unit operation. For the purposes of these determinations, the primary condenser operating as a reflux condenser on a reactor or distillation column, the primary condenser recovering monomer, reaction products, by-products, or solvent from a stripper operated in batch mode, and the primary condenser recovering monomer, reaction products, by-products, or solvent from a distillation operation operated in batch mode shall be considered part of the batch unit operation. All other devices that recover or oxidize organic HAP or TOC vapors shall be considered control devices as defined in § 63.1312.

(3) The owner or operator of a batch process vent complying with the flare provisions in § 63.1322(a)(1) or § 63.1322(b)(1) or routing the batch process vent to a control device to comply with the requirements in § 63.1322(a)(2) or § 63.1322(b)(2) is not required to perform the batch process vent group determination described in this section, but shall comply with all requirements applicable to Group 1 batch process vents for said batch process vent.

(b) *Determination of annual emissions.* The owner or operator shall calculate annual uncontrolled TOC or organic HAP emissions for each batch process vent using the methods described in paragraphs (b)(1) through (b)(8) of this section. To estimate emissions from a batch emissions episode, owners or operators may use either the emissions estimation equations in paragraphs (b)(1) through (b)(4) of this section, or direct measurement as specified in paragraph (b)(5) of this section. Engineering assessment may be used to estimate emissions from a batch emission episode only under the conditions described in paragraph (b)(6) of this section. In using the emissions estimation equations in paragraphs (b)(1) through (b)(4) of this section, individual component vapor pressure and molecular weight may be obtained from standard references. Methods to determine individual HAP partial pressures in multicomponent systems are described in paragraph (b)(9) of this section. Other variables in the emissions estimation equations may be

obtained through direct measurement, as defined in paragraph (b)(5) of this section, through engineering assessment, as defined in paragraph (b)(6)(ii) of this section, by process knowledge, or by any other appropriate means. Assumptions used in determining these variables must be documented. Once emissions for the batch emission episode have been determined using either the emissions estimation equations, direct measurement, or engineering assessment, emissions from a batch cycle shall be calculated in accordance with paragraph (b)(7) of this section, and annual emissions from the batch process vent shall be calculated in accordance with paragraph (b)(8) of this section.

(1) TOC or organic HAP emissions from the purging of an empty vessel shall be calculated using Equation 2 of this subpart. Equation 2 of this subpart does not take into account evaporation of any residual liquid in the vessel.

$$E_{episode} = \frac{(V_{ves})(P)(MW_{wavg})}{RT}\left(1 - 0.37^{m}\right) \qquad \text{[Eq. 2]}$$

Where:
Eepisode = Emissions, kg/episode.
Vves = Volume of vessel, m 3.
P = TOC or total organic HAP partial pressure, kPa.
MWwavg = Weighted average molecular weight of TOC or organic HAP in vapor, determined in accordance with paragraph (b)(4)(i)(D) of this section, kg/kmol.
R = Ideal gas constant, 8.314 m 3¢kPa/kmol¢K.
T = Temperature of vessel vapor space, K.
m = Number of volumes of purge gas used.

(2) TOC or organic HAP emissions from the purging of a filled vessel shall be calculated using Equation 3 of this subpart.

$$E_{episode} = \frac{(y)(V_{dr})(P^{2})(MW_{wavg})}{RT\left(P - \sum_{i=1}^{n} P_i x_i\right)}(T_m) \qquad \text{[Eq. 3]}$$

Where:
Eepisode = Emissions, kg/episode.
y = Saturated mole fraction of all TOC or organic HAP in vapor phase.
Vdr = Volumetric gas displacement rate, m 3/min.
P = Pressure in vessel vapor space, kPa.
MWwavg = Weighted average molecular weight of TOC or organic HAP in vapor, determined in accordance with paragraph (b)(4)(i)(D) of this section, kg/kmol.
R = Ideal gas constant, 8.314 m 3¢kPa/kmol¢K.
T = Temperature of vessel vapor space, K.
Pi = Vapor pressure of TOC or individual organic HAP i, kPa.
xi = Mole fraction of TOC or organic HAP i in the liquid.
n = Number of organic HAP in stream. Note: Summation not applicable if TOC emissions are being estimated.
Tm = Minutes/episode.

(3) Emissions from vapor displacement due to transfer of material into or out of a vessel shall be calculated using Equation 4 of this subpart.

$$E_{episode} = \frac{(y)(V)(P)\left(MW_{wavg}\right)}{RT} \qquad [Eq.\ 4]$$

where:

Eepisode=Emissions, kg/episode.

y=Saturated mole fraction of all TOC or organic HAP in vapor phase.

V=Volume of gas displaced from the vessel, m3.

P=Pressure in vessel vapor space, kPa.

MWwavg=Weighted average molecular weight of TOC or organic HAP in vapor, determined in accordance with paragraph (b)(4)(i)(D) of this section, kg/kmol.

R=Ideal gas constant, 8.314 m 3δdkPa/kmolδdK.

T=Temperature of vessel vapor space, K.

(4) Emissions caused by the heating of a vessel shall be calculated using the procedures in either paragraphs (b)(4)(i), (b)(4)(ii), or (b)(4)(iii) of this section, as appropriate.

(i) If the final temperature to which the vessel contents is heated is lower than 50 K below the boiling point of the HAP in the vessel, then emissions shall be calculated using the equations in paragraphs (b)(4)(i)(A) through (b)(4)(i)(D) of this section.

(A) Emissions caused by heating of a vessel shall be calculated using Equation 5 of this subpart. The assumptions made for this calculation are atmospheric pressure of 760 millimeters of mercury (mm Hg) and the displaced gas is always saturated with volatile organic compounds (VOC) vapor in equilibrium with the liquid mixture.

$$E_{episode} = \left[\frac{\dfrac{\sum_{i=1}^{n}(P_i)_{T1}}{101.325-\sum_{i=1}^{n}(P_i)_{T1}} + \dfrac{\sum_{i=1}^{n}(P_i)_{T2}}{101.325-\sum_{i=1}^{n}(P_i)_{T2}}}{2}\right] * (\Delta\eta)\left[\frac{\left(MW_{WAVG,T1}\right)+\left(MW_{WAVG,T2}\right)}{2}\right] \qquad [Eq.\ 5]$$

Where:

Eepisode = Emissions, kg/episode.

(Pi)T1, (Pi)T2 = Partial pressure (kPa) of TOC or each organic HAP i in the vessel headspace at initial (T1) and final (T2) temperature.

n = Number of organic HAP in stream. Note: Summation not applicable if TOC emissions are being estimated.

Δ?η? = Number of kilogram-moles (kg-moles) of gas displaced, determined in accordance with paragraph (b)(4)(i)(B) of this section.

101.325 = Constant, kPa.

(MWWAVG,T1), (MWWAVG,T2) = Weighted average molecular weight of TOC or total organic HAP in the displaced gas stream, determined in accordance with paragraph (b)(4)(i)(D) of this section, kg/kmol.

(B) The moles of gas displaced, Δ?η?, is calculated using Equation 6 of this subpart.

$$\Delta\eta = \frac{V_{fs}}{R}\left[\left(\frac{Pa_1}{T_1}\right) - \left(\frac{Pa_2}{T_2}\right)\right] \qquad \text{[Eq. 6]}$$

Where:

Δ?η? = Number of kg-moles of gas displaced.

Vfs = Volume of free space in the vessel, m 3.

R = Ideal gas constant, 8.314 m 3¢kPa/kmol¢K.

Pa1 = Initial noncondensible gas partial pressure in the vessel, kPa.

Pa2 = Final noncondensible gas partial pressure, kPa.

T1 = Initial temperature of vessel, K.

T2 = Final temperature of vessel, K.

(C) The initial and final pressure of the noncondensible gas in the vessel shall be calculated using Equation 7 of this subpart.

$$Pa = 101.325 - \sum_{i=1}^{n} (P_i)_T \qquad \text{[Eq. 7]}$$

Where:

Pa = Initial or final partial pressure of noncondensible gas in the vessel headspace, kPa.

101.325 = Constant, kPa.

(Pi)T = Partial pressure of TOC or each organic HAP i in the vessel headspace, kPa, at the initial or final temperature (T1 or T2).

n = Number of organic HAP in stream. Note: Summation not applicable if TOC emissions are being estimated.

(D) The weighted average molecular weight of TOC or organic HAP in the displaced gas, MWwavg, shall be calculated using Equation 8 of this subpart.

$$MW_{wavg} = \frac{\sum_{i=1}^{n} (mass\ of\ C)_i\ (molecular\ weight\ of\ C)_i}{\sum_{i=1}^{n} (mass\ of\ C)_i} \qquad [Eq.\ 8]$$

where:

C=TOC or organic HAP component

n=Number of TOC or organic HAP components in stream.

(ii) If the vessel contents are heated to a temperature greater than 50 K below the boiling point, then emissions from the heating of a vessel shall be calculated as the sum of the emissions calculated in accordance with paragraphs (b)(4)(ii)(A) and (b)(4)(ii)(B) of this section.

(A) For the interval from the initial temperature to the temperature 50 K below the boiling point, emissions shall be calculated using Equation 5 of this subpart, where T2 is the temperature 50 K below the boiling point.

(B) For the interval from the temperature 50 K below the boiling point to the final temperature, emissions shall be calculated as the summation of emissions for each 5 K increment, where the emissions for each increment shall be calculated using Equation 5 of this subpart.

(*1*) If the final temperature of the heatup is at or lower than 5 K below the boiling point, the final temperature for the last increment shall be the final temperature for the heatup, even if the last increment is less than 5 K.

(*2*) If the final temperature of the heatup is higher than 5 K below the boiling point, the final temperature for the last increment shall be the temperature 5 K below the boiling point, even if the last increment is less than 5 K.

(*3*) If the vessel contents are heated to the boiling point and the vessel is not operating with a condenser, the final temperature for the final increment shall be the temperature 5 K below the boiling point, even if the last increment is less than 5 K.

(iii) If the vessel is operating with a condenser, and the vessel contents are heated to the boiling point, the primary condenser, as specified in paragraph (a)(2) of this section, is considered part of the process. Emissions shall be calculated as the sum of emissions calculated using Equation 5 of this subpart, which calculates emissions due to heating the vessel contents to the temperature of the gas existing the condenser, and emissions calculated using Equation 4 of this subpart, which calculates emissions due to the displacement of the remaining saturated noncondensible gas in the vessel. The final temperature in Equation 5 of this subpart shall be set equal to the exit gas temperature of the condenser. Equation 4 of this subpart shall be used as written below in Equation 4a of this subpart, using free space volume, and T is set equal to the condenser exit gas temperature.

$$E_{episode} = \frac{(y)(V_{fs})(P)(MW_{wavg})}{RT} \qquad [Eq.\ 4a]$$

where:

Eepisode=Emissions, kg/episode.

y=Saturated mole fraction of all TOC or organic HAP in vapor phase.

Vfs=Volume of the free space in the vessel, m 3.

P=Pressure in vessel vapor space, kPa.

MWwavg=Weighted average molecular weight of TOC or organic HAP in vapor, determined in accordance with paragraph (b)(4)(i)(D) of this section, kg/kmol.

R=Ideal gas constant, 8.314 m 3δdkPa/kmolδdK.

T=Temperature of condenser exit stream, K.

(5) The owner or operator may estimate annual emissions for a batch emission episode by direct measurement. If direct measurement is used, the owner or operator shall either perform a test for the duration of a representative batch emission episode or perform a test during only those periods of the batch emission episode for which the emission rate for the entire episode can be determined or for which the emissions are greater than the average emission rate of the batch emission episode. The owner or operator choosing either of these options shall develop an emission profile for the entire batch emission episode, based on either process knowledge or test data collected, to demonstrate that test periods are representative. Examples of information that could constitute process knowledge include calculations based on material balances and process stoichiometry. Previous test results may be used provided the results are still relevant to the current batch process vent conditions. Performance tests shall follow the procedures specified in paragraphs (b)(5)(i) through (b)(5)(iii) of this section. The procedures in either paragraph (b)(5)(iv) or (b)(5)(v) of this section shall be used to calculate the emissions per batch emission episode.

(i) Method 1 or 1A, 40 CFR part 60, appendix A as appropriate, shall be used for selection of the sampling sites if the flow measuring device is a pitot tube. No traverse is necessary when Method 2A or 2D, 40 CFR part 60, appendix A is used to determine gas stream volumetric flow rate.

(ii) Annual average batch vent flow rate shall be determined as specified in paragraph (e) of this section.

(iii) Method 18 or Method 25A, 40 CFR part 60, appendix A, shall be used to determine the concentration of TOC or organic HAP, as appropriate. Alternatively, any other method or data that has been validated according to the applicable procedures in Method 301 of appendix A of this part may be used. The use of Method 25A, 40 CFR part 60, appendix A shall conform with the requirements in paragraphs (b)(5)(iii)(A) and (b)(5)(iii)(B) of this section.

(A) The organic HAP used as the calibration gas for Method 25A, 40 CFR part 60, appendix A shall be the single organic HAP representing the largest percent by volume of the emissions.

(B) The use of Method 25A, 40 CFR part 60, appendix A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(iv) If an integrated sample is taken over the entire batch emission episode to determine the average batch vent concentration of TOC or total organic HAP, emissions shall be calculated using Equation 9 of this subpart.

$$E_{episode} = K\left[\sum_{j=1}^{n}(C_j)(M_j)\right] AFR\ (T_h) \qquad \text{[Eq. 9]}$$

Where:

Eepisode = Emissions, kg/episode.

K = Constant, 2.494 × 10!-6 (ppmv)!-1 (gm-mole/scm) (kg/gm) (min/hr), where standard temperature is 20 EC.

Cj = Average batch vent concentration of TOC or sample organic HAP component j of the gas stream, dry basis, ppmv.

Mj = Molecular weight of TOC or sample organic HAP component j of the gas stream, gm/gm-mole.

AFR = Average batch vent flow rate of gas stream, dry basis, scmm.
Th = Hours/episode

n = Number of organic HAP in stream. Note: Summation not applicable if TOC emissions are being estimated using a TOC concentration measured using Method 25A, 40 CFR part 60, appendix A.

(v) If grab samples are taken to determine the average batch vent concentration of TOC or total organic HAP, emissions shall be calculated according to paragraphs (b)(5)(v)(A) and (b)(5)(v)(B) of this section.

(A) For each measurement point, the emission rate shall be calculated using Equation 10 of this subpart.

$$E_{point} = K\left[\sum_{j=1}^{n} C_j M_j\right] FR \qquad \text{[Eq. 10]}$$

Where:

Epoint = Emission rate for individual measurement point, kg/hr.

K = Constant, 2.494 × 10!-!-6 (ppmv)!-1 (gm-mole/scm) (kg/gm) (min/hr), where standard temperature is 20 EC.

Cj = Concentration of TOC or sample organic HAP component j of the gas stream, dry basis, ppmv.

Mj = Molecular weight of TOC or sample organic HAP component j of the gas stream, gm/gm-mole.

FR = Flow rate of gas stream for the measurement point, dry basis, scmm.

n = Number of organic HAP in stream. Note: Summation not applicable if TOC emissions are being estimated using a TOC concentration measured using Method 25A, 40 CFR part 60, appendix A.

(B) The emissions per batch emission episode shall be calculated using Equation 11 of this subpart.

$$E_{episode} = (DUR)\left[\sum_{i=1}^{n}\frac{E_i}{n}\right] \qquad [Eq.\ 11]$$

where:

Eepisode=Emissions, kg/episode.

DUR=Duration of the batch emission episode, hr/episode.

Ei=Emissions for measurement point i, kg/hr.

n=Number of measurements.

(6) Engineering assessment may be used to estimate emissions from a batch emission episode, if the criteria in paragraph (b)(6)(i) are met. Data or other information used to demonstrate that the criteria in paragraph (b)(6)(i) of this section have been met shall be reported as specified in paragraph (b)(6)(iii) of this section. Paragraph (b)(6)(ii) of this section defines engineering assessment, for the purposes of estimating emissions from a batch emissions episode. All data, assumptions, and procedures used in an engineering assessment shall be documented.

(i) If the criteria specified in paragraph (b)(6)(i)(A), (B), or (C) are met for a specific batch emission episode, the owner or operator may use engineering assessment, as described in paragraph (b)(6)(ii) of this section, to estimate emissions from that batch emission episode, and the owner or operator is not required to use the emissions estimation equations described in paragraphs (b)(1) through (b)(4) of this section to estimate emissions from that batch emission episode.

(A) Previous test data, where the measurement of organic HAP or TOC emissions was an outcome of the test, show a greater than 20 percent discrepancy between the test value and the value estimated using the applicable equations in paragraphs (b)(1) through (b)(4) of this section. Paragraphs (b)(6)(i)(A)(*1*) and (*2*) of this section describe test data that will be acceptable under this paragraph (b)(6)(i)(A).

(*1*) Test data for the batch emission episode obtained during production of the product for which the demonstration is being made.

(*2*) Test data obtained for a batch emission episode from another process train, where the test data were obtained during production of the product for which the demonstration is being made. Test data from another process train may be used only if the owner or operator can demonstrate that the data are representative of the batch emission episode for which the demonstration is being made, taking into account the nature, size, operating conditions, production rate, and sequence of process steps (*e.g.,* reaction, distillation, etc.) of the equipment in the other process train.

(B) Previous test data obtained during the production of the product for which the demonstration is being made, for the batch emission episode with the highest organic HAP emissions on a mass basis, show a greater than 20 percent discrepancy between the test value and the value estimated using the applicable equations in paragraphs (b)(1) through (b)(4) of this section. If the criteria in this paragraph (b)(6)(i)(B) are met, then engineering assessment may be used for all batch emission episodes associated with that batch cycle for the batch unit operation.

(C) The owner or operator has requested and been granted approval to use engineering assessment to estimate emissions from a batch emissions episode. The request to use engineering assessment to estimate emissions from a batch emissions episode shall contain sufficient information and data to demonstrate to

the Administrator that engineering assessment is an accurate means of estimating emissions for that particular batch emissions episode. The request to use engineering assessment to estimate emissions for a batch emissions episode shall be submitted in the Precompliance Report required under § 63.1335(e)(3).

(ii) Engineering assessment includes, but is not limited to, the following:

(A) Previous test results, provided the tests are representative of current operating practices;

(B) Bench-scale or pilot-scale test data obtained under conditions representative of current process operating conditions;

(C) Flow rate, TOC emission rate, or organic HAP emission rate specified or implied within a permit limit applicable to the batch process vent; and

(D) 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:

(*1*) Use of material balances;

(*2*) Estimation of flow rate based on physical equipment design such as pump or blower capacities;

(*3*) Estimation of TOC or organic HAP concentrations based on saturation conditions; and

(*4*) Estimation of TOC or organic HAP concentrations based on grab samples of the liquid or vapor.

(iii) Data or other information used to demonstrate that the criteria in paragraph (b)(6)(i) of this section have been met shall be reported as specified in paragraphs (b)(6)(iii)(A) and (b)(6)(iii)(B) of this section.

(A) Data or other information used to demonstrate that the criteria in paragraph (b)(6)(i)(A) or (b)(6)(i)(B) of this section have been met shall be reported in the Notification of Compliance Status, as required in § 63.1327(a)(6).

(B) The request for approval to use engineering assessment to estimate emissions from a batch emissions episode as allowed under paragraph (b)(6)(i)(C) of this section, and sufficient data or other information for demonstrating to the Administrator that engineering assessment is an accurate means of estimating emissions for that particular batch emissions episode shall be submitted with the Precompliance Report, as required in § 63.1335(e)(3).

(7) For each batch process vent, the TOC or organic HAP emissions associated with a single batch cycle shall be calculated using Equation 12 of this subpart.

$$E_{cycle} = \sum_{i=1}^{n} E_{episode_i} \qquad [Eq.\ 12]$$

Where:

Ecycle=Emissions for an individual batch cycle, kg/batch cycle

Eepisode i=Emissions from batch emission episode i, kg/episode

n=Number of batch emission episodes for the batch cycle

(8) Annual TOC or organic HAP emissions from a batch process vent shall be calculated using Equation 13 of this subpart.

$$AE = \sum_{i=1}^{n} (N_i)(E_{cycle_i}) \qquad [Eq. 13]$$

where:

AE=Annual emissions from a batch process vent, kg/yr.

Ni=Number of type i batch cycles performed annually, cycles/year

Ecycle i=Emissions from the batch process vent associated with a single type i batch cycle, as determined in paragraph (b)(7) of this section, kg/batch cycle

n=Number of different types of batch cycles that cause the emission of TOC or organic HAP from the batch process vent

(9) Individual HAP partial pressures in multicomponent systems shall be determined using the appropriate method specified in paragraphs (b)(9)(i) through (b)(9)(iii) of this section.

(i) If the components are miscible, use Raoult's law to calculate the partial pressures;

(ii) If the solution is a dilute aqueous mixture, use Henry's law constants to calculate partial pressures;

(iii) If Raoult's law or Henry's law are not appropriate or available, the owner or operator may use any of the options in paragraphs (b)(9)(iii)(A), (B), or (C) of this section.

(A) Experimentally obtained activity coefficients, Henry's law constants, or solubility data;

(B) Models, such as group-contribution models, to predict activity coefficients; or

(C) Assume the components of the system behave independently and use the summation of all vapor pressures from the HAPs as the total HAP partial pressure.

(c) [Reserved]

(d) *Minimum emission level exemption.* A batch process vent with annual emissions of TOC or organic HAP less than 11,800 kg/yr is considered a Group 2 batch process vent and the owner or operator of said batch process vent shall comply with the requirements in § 63.1322(f) or (g). Annual emissions of TOC or organic HAP are determined at the exit of the batch unit operation, as described in paragraph (a)(2) of this section, and are determined as specified in paragraph (b) of this section. The owner or operator of said batch process vent is not required to comply with the provisions in paragraphs (e) through (g) of this section.

(e) *Determination of average batch vent flow rate and annual average batch vent flow rate.* The owner or operator shall determine the average batch vent flow rate for each batch emission episode in accordance with one of the procedures provided in paragraphs (e)(1) through (e)(2) of this section. The annual average batch vent flow rate for a batch process vent shall be calculated as specified in paragraph (e)(3) of this section.

(1) Determination of the average batch vent flow rate for a batch emission episode by direct measurement shall be made using the procedures specified in paragraphs (e)(1)(i) through (e)(1)(iii) of this section.

(i) The volumetric flow rate (FRi) for a batch emission episode, in standard cubic meters per minute (scmm) at 20 EC, shall be determined using Method 2, 2A, 2C, or 2D, 40 CFR part 60, appendix A, as appropriate.

(ii) The volumetric flow rate of a representative batch emission episode shall be measured every 15 minutes.

(iii) The average batch vent flow rate for a batch emission episode shall be calculated using Equation 14 of this subpart.

$$AFR_{episode} = \frac{\sum_{i=1}^{n} FR_i}{n} \qquad \text{[Eq. 14]}$$

Where:

AFRepisode = Average batch vent flow rate for the batch emission episode, scmm.

FRi = Flow rate for individual measurement i, scmm.

n = Number of flow rate measurements taken during the batch emission episode.

(2) The average batch vent flow rate for a batch emission episode may be determined by engineering assessment, as defined in paragraph (b)(6)(i) of this section. All data, assumptions, and procedures used shall be documented.

(3) The annual average batch vent flow rate for a batch process vent shall be calculated using Equation 15 of this subpart.

$$AFR = \frac{\sum_{i=1}^{n} (DUR_i)(AFR_{episode,i})}{\sum_{i=1}^{n} (DUR_i)} \qquad \text{[Eq. 15]}$$

Where:

AFR = Annual average batch vent flow rate for the batch process vent, scmm.

DURi = Duration of type i batch emission episodes annually, hrs/yr.

AFRepisode,i = Average batch vent flow rate for type i batch emission episode, scmm.

n = Number of types of batch emission episodes venting from the batch process vent.

(f) *Determination of cutoff flow rate.* For each batch process vent, the owner or operator shall calculate the cutoff flow rate using Equation 16 of this subpart.

CFR = (0.00437) (AE) !- 51.6 [Eq. 16] where:

CFR = Cutoff flow rate, scmm.

AE = Annual TOC or organic HAP emissions, as determined in paragraph (b)(8) of this section, kg/yr.

(g) *Group 1/Group 2 status determination.* The owner or operator shall compare the cutoff flow rate, calculated in accordance with paragraph (f) of this section, with the annual average batch vent flow rate, determined in accordance with paragraph (e)(3) of this section. The group determination status for each batch process vent shall be made using the criteria specified in paragraphs (g)(1) and (g)(2) of this section.

(1) If the cutoff flow rate is greater than or equal to the annual average batch vent flow rate of the stream, the batch process vent is classified as a Group 1 batch process vent.

(2) If the cutoff flow rate is less than the annual average batch vent flow rate of the stream, the batch process vent is classified as a Group 2 batch process vent.

(h) *Determination of halogenation status.* To determine whether a batch process vent or an aggregate batch vent stream is halogenated, the annual mass emission rate of halogen atoms contained in organic compounds shall be calculated using the procedures specified in paragraphs (h)(1) through (h)(3) of this section.

(1) The concentration of each organic compound containing halogen atoms (ppmv, by compound) for each batch emission episode shall be determined after the last recovery device (if any recovery devices are present), based on any one of the following procedures:

(i) Process knowledge that no halogens or hydrogen halides are present in the process may be used to demonstrate that a batch emission episode is nonhalogenated. Halogens or hydrogen halides that are unintentionally introduced into the process shall not be considered in making a finding that a batch emission episode is nonhalogenated.

(ii) Engineering assessment as discussed in paragraph (b)(6)(i) of this section.

(iii) Average concentration of organic compounds containing halogens and hydrogen halides as measured by Method 26 or 26A, 40 CFR part 60, appendix A.

(iv) Any other method or data that has been validated according to the applicable procedures in Method 301 of appendix A of this part.

(2) The annual mass emissions of halogen atoms for a batch process vent shall be calculated using Equation 17 of this subpart.

$$E_{halogen} = K \left[ \sum_{j=1}^{n} \sum_{i=1}^{m} \left( C_{avg_i} \right) \left( L_{j,i} \right) \left( M_{j,i} \right) \right] AFR \qquad \text{[Eq. 17]}$$

Where:

Ehalogen = Mass of halogen atoms, dry basis, kg/yr.

K = Constant, 0.022 (ppmv)!-1 (kg-mole per scm) (minute/yr), where standard temperature is 20 EC.

AFR = Annual average batch vent flow rate of the batch process vent, determined according to paragraph (e) of this section, scmm.

Mj,i = Molecular weight of halogen atom i in compound j, kg/kg-mole.

Lj,i = Number of atoms of halogen i in compound j.

n = Number of halogenated compounds j in the batch process vent.

m = Number of different halogens i in each compound j of the batch process vent.

Cavgj = Annual average batch vent concentration of halogenated compound j in the batch process vent as determined by using Equation 18 of this subpart, dry basis, ppmv.

$$C_{avg_j} = \frac{\sum_{i=1}^{n}(DUR_i)(C_i)}{\sum_{i=1}^{n}(DUR_i)} \qquad \text{[Eq. 18]}$$

Where:

DURi = Duration of type i batch emission episodes annually, hrs/yr.

Ci = Average batch vent concentration of halogenated compound j in type i batch emission episode, ppmv.

n = Number of types of batch emission episodes venting from the batch process vent.

(3) The annual mass emissions of halogen atoms for an aggregate batch vent stream shall be the sum of the annual mass emissions of halogen atoms for all batch process vents included in the aggregate batch vent stream.

(i) *Process changes affecting Group 2 batch process vents.* Whenever process changes, as described in paragraph (i)(1) of this section, are made that affect one or more Group 2 batch process vents and that could reasonably be expected to change one or more Group 2 batch process vents to Group 1 batch process vents or that could reasonably be expected to reduce the batch mass input limitation for one or more Group 2 batch process vents, the owner or operator shall comply with paragraphs (i)(2) and (3) of this section.

(1) Examples of process changes include the changes listed in paragraphs (i)(1)(i), (i)(1)(ii), and (i)(1)(iii) of this section.

(i) For all batch process vents, examples of process changes include, but are not limited to, changes in feedstock type or catalyst type; or whenever there is replacement, removal, or modification of recovery equipment considered part of the batch unit operation as specified in paragraph (a)(2) of this section; or increases in production capacity or production rate. For purposes of this paragraph (i), process changes do not include: Process upsets; unintentional, temporary process changes; and changes that are within the margin of variation on which the original group determination was based.

(ii) For Group 2 batch process vents where the group determination and batch mass input limitation are based on the expected mix of products, the situations described in paragraphs (i)(1)(ii)(A) and (B) of this section shall be considered to be process changes.

(A) The production of combinations of products not considered in establishing the batch mass input limitation.

(B) The production of a recipe of a product with a total mass of HAP charged to the reactor during the production of a single batch of product that is higher than the total mass of HAP for the recipe used as the single highest-HAP recipe for that product in the batch mass input limitation determination.

(iii) For Group 2 batch process vents where the group determination and batch mass input limitation are based on the single highest-HAP recipe (considering all products produced or processed in the batch unit operation), the production of a recipe having a total mass of HAP charged to the reactor (during the production of a single batch of product) that is higher than the total mass of HAP for the highest-HAP recipe used in the batch mass input limitation determination shall be considered to be a process change.

(2) For each batch process vent affected by a process change, the owner or operator shall redetermine the group status by repeating the procedures specified in paragraphs (b) through (g) of this section, as applicable; alternatively, engineering assessment, as described in paragraph (b)(6)(i) of this section, may be used to determine the effects of the process change.

(3) Based on the results from paragraph (i)(2) of this section, owners or operators of affected sources shall comply with either paragraph (i)(3)(i), (ii), or (iii) of this section.

(i) If the group redetermination described in paragraph (i)(2) of this section indicates that a Group 2 batch process vent has become a Group 1 batch process vent as a result of the process change, the owner or operator shall submit a report as specified in § 63.1327(b) and shall comply with the Group 1 provisions in §§ 63.1322 through 63.1327 in accordance with § 63.1310(i)(2)(ii) or (i)(2)(iii), as applicable.

(ii) If the redetermination described in paragraph (i)(2) of this section indicates that a Group 2 batch process vent with annual emissions less than the level specified in paragraph (d) of this section, that is in compliance with § 63.1322(g), now has annual emissions greater than or equal to the level specified in paragraph (d) of this section but remains a Group 2 batch process vent, the owner or operator shall comply with the provisions in paragraphs (i)(3)(ii)(A) through (C) of this section.

(A) Redetermine the batch mass input limitation;

(B) Submit a report as specified in § 63.1327(c); and

(C) Comply with § 63.1322(f), beginning with the year following the submittal of the report submitted according to paragraph (i)(3)(ii)(B) of this section.

(iii) If the group redetermination described in paragraph (i)(2) of this section indicates no change in group status or no change in the relation of annual emissions to the levels specified in paragraph (d) of this section, the owner or operator shall comply with paragraphs (i)(3)(iii)(A) and (i)(3)(iii)(B) of this section.

(A) The owner or operator shall redetermine the batch mass input limitation; and

(B) The owner or operator shall submit the new batch mass input limitation in accordance with § 63.1327(c).

(j) *Process changes to new SAN affected sources using a batch process.* Whenever process changes, as described in paragraph (j)(1) of this section, are made to a new affected source producing SAN using a batch process that could reasonably be expected to adversely impact the compliance status (*i.e.,* achievement of 84 percent emission reduction) of the affected source, the owner or operator shall comply with paragraphs (j)(2) and (3) of this section.

(1) Examples of process changes include, but are not limited to, changes in production capacity, production rate, feedstock type, or catalyst type; replacement, removal, or addition of recovery equipment considered part of a batch unit operation, as specified in paragraph (a)(1) of this section; replacement, removal, or addition of control equipment associated with a continuous or batch process vent or an aggregate batch vent stream. For purposes of this paragraph (j)(1), process changes do not include process upsets or unintentional, temporary process changes.

(2) The owner or operator shall redetermine the percent emission reduction achieved using the procedures specified in § 63.1333(c). If engineering assessment, as described in paragraph (b)(6)(i) of this section, can demonstrate that the process change did not cause the percent emission reduction to decrease, it may be used in lieu of redetermining the percent reduction using the procedures specified in § 63.1333(c).

(3) Where the redetermined percent reduction is less than 84 percent, the owner or operator of the affected source shall submit a report as specified in § 63.1327(d) and shall comply with § 63.1322(a)(3) and all associated provisions in accordance with § 63.1310(i).

**[40 CFR 63.1324]**

**Batch process vents -- monitoring equipment.**

(a) *General requirements.* Each owner or operator of a batch process vent or aggregate batch vent stream that uses a control device to comply with the requirements in § 63.1322(a) or § 63.1322(b), shall install the monitoring equipment specified in paragraph (c) of this section. 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 would reasonably be expected to monitor accurately.

(1) This monitoring equipment shall be in operation at all times when batch emission episodes, or portions thereof, that the owner or operator has selected to control are vented to the control device, or at all times when an aggregate batch vent stream is vented to the control device.

(2) Except as otherwise provided in this subpart, the owner or operator shall operate control devices such that the daily average of monitored parameters, established as specified in paragraph (f) of this section, remains above the minimum level or below the maximum level, as appropriate.

(b) *Continuous process vents.* Each owner or operator of a continuous process vent that uses a control device or recovery device to comply with the requirements in § 63.1322(a)(3) shall comply with the applicable requirements of § 63.1315(a) as specified in § 63.1321(b).

(c) *Batch process vent and aggregate batch vent stream monitoring equipment.* The monitoring equipment specified in paragraphs (c)(1) through (c)(8) of this section shall be installed as specified in paragraph (a) of this section. The parameters to be monitored are specified in Table 7 of this subpart.

(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, the 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, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting the presence of a pilot flame is required.

(3) Where a boiler or process heater of less than 44 megawatts design heat input capacity is used, a temperature monitoring device in the firebox equipped with a continuous recorder is required. Any boiler or process heater in which all batch process vents or aggregate batch vent streams are introduced with the primary fuel or are used as the primary fuel is exempt from this requirement.

(4) Where a scrubber is used with an incinerator, boiler, or process heater in concert with the combustion of halogenated batch process vents or halogenated aggregate batch vent streams, the following monitoring equipment is required for the scrubber.

(i) A pH monitoring device equipped with a continuous recorder to monitor the pH of the scrubber effluent.

(ii) A flow measurement device equipped with a continuous recorder shall be located at the scrubber influent for liquid flow. Gas stream flow shall be determined using one of the procedures specified in paragraphs (c)(4)(ii)(A) through (c)(4)(ii)(C) of this section.

(A) The owner or operator may determine gas stream flow using the design blower capacity, with appropriate adjustments for pressure drop.

(B) If the scrubber is subject to regulations in 40 CFR parts 264 through 266 that have required a determination of the liquid to gas (L/G) ratio prior to the applicable compliance date for this subpart, the owner or operator may determine gas stream flow by the method that had been utilized to comply with those regulations. A determination that was conducted prior to the compliance date for this subpart may be utilized to comply with this subpart if it is still representative.

(C) The owner or operator may prepare and implement a gas stream flow determination plan that documents an appropriate method which will be used to determine the gas stream flow. The plan shall require determination of gas stream flow by a method which will at least provide a value for either a representative or the highest gas stream flow anticipated in the scrubber during representative operating conditions other than start-ups, shutdowns, or malfunctions. The plan shall include a description of the methodology to be followed and an explanation of how the selected methodology will reliably determine the gas stream flow, and a description of the records that will be maintained to document the determination of gas stream flow. The owner or operator shall maintain the plan as specified in § 63.1335(a).

(5) Where an absorber is used, a scrubbing liquid temperature monitoring device and a specific gravity monitoring device are required, each equipped with a continuous recorder.

(6) Where a condenser is used, a condenser exit temperature (product side) monitoring device equipped with a continuous recorder is required.

(7) Where a carbon adsorber is used, an integrating regeneration steam flow or nitrogen flow, or pressure monitoring device having an accuracy of ±10 percent of the flow rate, level, or pressure, or better, capable of recording the total regeneration steam flow or nitrogen flow, or pressure (gauge or absolute) for each regeneration cycle; and a carbon bed temperature monitoring device, capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle are required.

(8) As an alternate to paragraphs (c)(5) through (c)(7) of this section, the owner or operator may install an organic monitoring device equipped with a continuous recorder.

(d) *Alternative monitoring parameters.* An owner or operator of a batch process vent or aggregate batch vent stream may request approval to monitor parameters other than those required by paragraph (c) of this section. The request shall be submitted according to the procedures specified in § 63.1327(f) and § 63.1335(f). Approval shall be requested if the owner or operator:

(1) Uses a control device other than those included in paragraph (c) of this section; or

(2) Uses one of the control devices included in paragraph (c) of this section, but seeks to monitor a parameter other than those specified in Table 7 of this subpart and paragraph (c) of this section.

(e) *Monitoring of bypass lines.* Owners or operators of a batch process vent or aggregate batch vent stream using a vent system that contains bypass lines that could divert emissions away from a control device used to comply with § 63.1322(a) or § 63.1322(b) shall comply with either paragraph (e)(1) or (e)(2) of this section. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to this paragraph (e).

(1) Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in § 63.1326(e)(3). The flow indicator shall be installed at the entrance to any bypass line that could divert emissions away from the control device and to the atmosphere; or

(2) Secure the bypass line damper or valve in the non-diverting 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 damper or valve is maintained in the non-diverting position and emissions are not diverted through the bypass line. Records shall be generated as specified in § 63.1326(e)(4).

(f) *Establishment of parameter monitoring levels.* Parameter monitoring levels for batch process vents and aggregate batch vent streams shall be established as specified in paragraphs (f)(1) through (f)(3) of this section. For continuous process vents complying with § 63.1322(a)(3), parameter monitoring levels shall be established as specified in § 63.1315(a), except as specified in paragraph (f)(4) of this section.

(1) For each parameter monitored under paragraph (c) or (d) of this section, the owner or operator shall establish a level, defined as either a maximum or minimum operating parameter as denoted in Table 8 of this subpart, that indicates proper operation of the control device. The level shall be established in accordance with the procedures specified in § 63.1334. The level may be based upon a prior performance test conducted for determining compliance with a regulation promulgated by EPA, and the owner or operator is not required to conduct a performance test

under § 63.1325, provided that the prior performance test meets the conditions of § 63.1325(b)(3).

(i) For batch process vents using a control device to comply with § 63.1322(a)(2), the established level shall reflect the control efficiency established as part of the initial compliance demonstration specified in § 63.1325(c)(2).

(ii) For aggregate batch vent streams using a control device to comply with § 63.1322(b)(2), the established level shall reflect the emission reduction requirement of either 90 percent or 20 ppmv specified in § 63.1322(b)(2).

(iii) For batch process vents and aggregate batch vent streams using a control device to comply with § 63.1322(a)(3), the established level shall reflect the control efficiency established as part of the initial compliance demonstration specified in § 63.1325(f)(4).

(2) The established level, along with supporting documentation, shall be submitted in the Notification of Compliance Status or the operating permit application as required in § 63.1335(e)(5) or § 63.1335(e)(8), respectively.

(3) The operating day shall be defined as part of establishing the parameter monitoring level and shall be submitted with the information in paragraph (f)(2) of this section. The definition of operating day shall specify the time(s) at which an operating day begins and ends. The operating day shall not exceed 24 hours.

(4) For continuous process vents using a control or recovery device to comply with § 63.1322(a)(3), the established level shall reflect the control efficiency established as part of the initial compliance demonstration specified in § 63.1325(f)(4).

**[40 CFR 63.1325]**

**Batch process vents -- performance test methods and procedures to determine compliance.**

(a) *Use of a flare.* When a flare is used to comply with § 63.1322(a)(1), § 63.1322(a)(3), § 63.1322(b)(1), or § 63.1322(b)(3), the owner or operator of an affected source shall comply with § 63.1333(e).

(b) *Exceptions to performance tests.* An owner or operator is not required to conduct a performance test when a control device specified in paragraphs (b)(1) through (b)(5) of this section is used to comply with § 63.1322(a)(2) or (a)(3).

(1) A boiler or process heater with a design heat input capacity of 44 megawatts or greater.

(2) A boiler or process heater where the vent stream is introduced with the primary fuel or is used as the primary fuel.

(3) A control device for which a performance test was conducted for determining compliance with a regulation promulgated by the EPA and the test was conducted using the same Methods specified in this section and either no deliberate process changes have been made since the test, or the owner or operator can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes. Recovery devices used for controlling emissions from continuous process vents complying with § 63.1322(a)(3) are also eligible for the exemption described in this paragraph (b)(3).

(4) A boiler or process heater burning hazardous waste for which the owner or operator:

(i) Has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H; or

(ii) Has certified compliance with the interim status requirements of 40 CFR part 266, subpart H.

(5) 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.

(c) *Batch process vent testing and procedures for compliance with § 63.1322(a)(2).* Except as provided in paragraph (a) or (b) of this section, an owner or operator using a control device to comply with § 63.1322(a)(2) shall conduct a performance test using the procedures specified in paragraph (c)(1) of this section in order to determine the control efficiency of the control device. An owner or operator shall determine the percent reduction for the batch cycle using the control efficiency of the control device as specified in paragraphs (c)(2)(i) through (c)(2)(iii) of this section and the procedures specified in paragraph (c)(2) of this section. Compliance may be based on either total organic HAP or TOC. For purposes of this paragraph (c), the term "batch emission episode" shall have the meaning "period of the batch emission episode selected for control," which may be the entire batch emission episode or may only be a portion of the batch emission episode.

(1) Performance tests shall be conducted as specified in paragraphs (c)(1)(i) through (c)(1)(v) of this section.

(i) Except as specified in paragraph (c)(1)(i)(A) of this section, a test shall be performed for the entire period of each batch emission episode in the batch cycle that the owner or operator selects to control as part of achieving the required 90 percent emission reduction for the batch cycle specified in § 63.1322(a)(2). Only one test is required for each batch emission episode selected by the owner or operator for control. The owner or operator shall follow the procedures listed in paragraphs (c)(1)(i)(B) through (c)(1)(i)(D) of this section.

(A) Alternatively, an owner or operator may choose to test only those periods of the batch emission episode during which the emission rate for the entire episode can be determined or during which the emissions are greater than the average emission rate of the batch emission episode. The owner or operator choosing either of these options shall develop an emission profile for the entire batch emission episode, based on either process knowledge or test data collected, to demonstrate that test periods are representative. Examples of information that could constitute process knowledge include calculations based on material balances and process stoichiometry. Previous test results may be used provided the results are still relevant to the current batch process vent conditions.

(B) Method 1 or 1A, 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling sites if the flow measuring device is a pitot tube, except that references to particulate matter in Method 1A do not apply for the purposes of this subpart. No traverse is necessary when Method 2A or 2D, 40 CFR part 60, appendix A is used to determine gas stream volumetric flow rate. Inlet sampling sites shall be located as specified in paragraphs (c)(1)(i)(B)(*1*) and (c)(1)(i)(B)(*2*) of this section. Outlet sampling sites shall be located at the outlet of the control device prior to release to the atmosphere.

(*1*) The control device inlet sampling site shall be located at the exit from the batch unit operation before any control device. § 63.1323(a)(2) describes those recovery devices considered part of the unit operation. Inlet sampling sites would be after these specified recovery devices.

(*2*) If a batch process vent is introduced with the combustion air or as a secondary fuel into a boiler or process heater with a design capacity less than 44 megawatts, selection of the location of the inlet sampling sites shall ensure the measurement of total organic HAP or TOC (minus methane and ethane) concentrations in all batch process vents and primary and secondary fuels introduced into the boiler or process heater.

(C) Gas stream volumetric flow rate and/or average batch vent flow rate shall be determined as specified in § 63.1323(e).

(D) Method 18 or Method 25A, 40 CFR part 60, appendix A shall be used to determine the concentration of organic HAP or TOC, as appropriate. Alternatively, any other method or data that has been validated according to the applicable procedures in Method 301 of appendix A of this part may be used. The use of Method 25A, 40 CFR part 60, appendix A shall conform with the requirements in paragraphs (c)(1)(i)(D)(*1*) and (c)(1)(i)(D)(*2*) of this section.

(*1*) The organic HAP used as the calibration gas for Method 25A, 40 CFR part 60, appendix A shall be the single organic HAP representing the largest percent by volume of the emissions.

(*2*) The use of Method 25A, 40 CFR part 60, appendix A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(ii) If an integrated sample is taken over the entire test period to determine average batch vent concentration of TOC or total organic HAP, emissions per batch emission episode shall be calculated using Equations 19 and 20 of this subpart.

$$E_{episode,inlet} = K\left[\sum_{j=1}^{n}\left(C_{j,inlet}\right)\left(M_j\right)\right]\left(AFR_{inlet}\right)\left(T_h\right) \qquad \text{[Eq. 19]}$$

$$E_{episode,outlet} = K\left[\sum_{j=1}^{n}\left(C_{j,outlet}\right)\left(M_j\right)\right]\left(AFR_{outlet}\right)\left(T_h\right) \qquad \text{[Eq. 20]}$$

Where:

Eepisode=Inlet or outlet emissions, kg/episode.

K=Constant, 2.494×10 ! - 6 (ppmv) ! - 1 (gm-mole/scm) (kg/gm) (min/hr), where standard temperature is 20 EC.

Cj=Average inlet or outlet concentration of TOC or sample organic HAP component j of the gas stream for the batch emission episode, dry basis, ppmv.

Mj=Molecular weight of TOC or sample organic HAP component j of the gas stream, gm/gm-mole.

AFR = Average inlet or outlet flow rate of gas stream for the batch emission episode, dry basis, scmm.

Th=Hours/episode.

n=Number of organic HAP in stream. Note: Summation is not applicable if TOC emissions are being estimated using a TOC concentration measured using Method 25A, 40 CFR part 60, appendix A.

(iii) If grab samples are taken to determine average batch vent concentration of TOC or total organic HAP, emissions shall be calculated according to paragraphs (c)(1)(iii)(A) and (B) of this section.

(A) For each measurement point, the emission rates shall be calculated using Equations 21 and 22 of this subpart.

$$E_{\text{point},inlet} = K \left[ \sum_{j=1}^{n} C_j M_j \right] FR_{inlet} \qquad \text{[Eq. 21]}$$

$$E_{\text{point},outlet} = K \left[ \sum_{j=1}^{n} C_j M_j \right] FR_{outlet} \qquad \text{[Eq. 22]}$$

Where:

Epoint=Inlet or outlet emission rate for the measurement point, kg/hr.

K=Constant, 2.494 × 10!-6 (ppmv)!-1 (gm-mole/scm) (kg/gm) (min/hr), where standard temperature is 20 EC.

Cj=Inlet or outlet concentration of TOC or sample organic HAP component j of the gas stream, dry basis, ppmv.

Mj=Molecular weight of TOC or sample organic HAP component j of the gas stream, gm/gm-mole.

FR=Inlet or outlet flow rate of gas stream for the measurement point, dry basis, scmm.

n=Number of organic HAP in stream. Note: Summation is not applicable if TOC emissions are being estimated using a TOC concentration measured using Method 25A, 40 CFR part 60, appendix A.

(B) The emissions per batch emission episode shall be calculated using Equations 23 and 24 of this subpart.

$$E_{episode,inlet} = (DUR) \left[ \sum_{i=1}^{n} \frac{E_{point,inlet,i}}{n} \right] \qquad [Eq.\ 23]$$

$$E_{episode,outlet} = (DUR) \left[ \sum_{i=1}^{n} \frac{E_{point,outlet,i}}{n} \right] \qquad [Eq.\ 24]$$

where:

Eepisode = Inlet or outlet emissions, kg/episode.

DUR = Duration of the batch emission episode, hr/episode.

Epoint,i = Inlet or outlet emissions for measurement point i, kg/hr.

n = Number of measurements.

(iv) The control efficiency for the control device shall be calculated using Equation 25 of this subpart.

$$R = \frac{\sum_{i=1}^{n} E_{inlet,i} - \sum_{i=1}^{n} E_{outlet,i}}{\sum_{i=1}^{n} E_{inlet,i}} (100) \qquad [Eq.\ 25]$$

where:

R = Control efficiency of control device, percent.

Einlet = Mass rate of TOC or total organic HAP for batch emission episode i at the inlet to the control device as calculated under paragraph (c)(1)(ii) or (c)(1)(iii) of this section, kg/hr.

Eoutlet = Mass rate of TOC or total organic HAP for batch emission episode i at the outlet of the control device, as calculated under paragraph (c)(1)(ii) or (c)(1)(iii) of this section, kg/hr.

n = Number of batch emission episodes in the batch cycle selected to be controlled.

(v) If the batch process vent entering a boiler or process heater with a design capacity less than 44 megawatts is introduced with the combustion air or as a secondary fuel, the weight-percent reduction of total organic HAP or TOC across the device shall be determined by comparing the TOC or total organic HAP in all combusted batch process vents and primary and secondary fuels with the TOC or total organic HAP, respectively, exiting the combustion device.

(2) The percent reduction for the batch cycle shall be determined using Equation 26 of this subpart and the control device efficiencies specified in paragraphs (c)(2)(i) through (c)(2)(iii) of this section. All information used to calculate the batch cycle percent reduction, including a definition of the batch cycle identifying all batch emission episodes, shall be recorded as specified in § 63.1326(b)(2). This information shall include identification of those batch emission episodes, or portions thereof, selected for control.

$$PR = \frac{\sum_{i=1}^{n} E_{unc} + \sum_{i=1}^{n} E_{inlet,con} - \sum_{i=1}^{n} (1-R)\, E_{inlet,con}}{\sum_{i=1}^{n} E_{unc} + \sum_{i=1}^{n} E_{inlet,con}} (100) \qquad [Eq.\ 26]$$

Where:

PR = Percent reduction

Eunc = Mass rate of TOC or total organic HAP for uncontrolled batch emission episode i, kg/hr.

Einlet,con = Mass rate of TOC or total organic HAP for controlled batch emission episode i at the inlet to the control device, kg/hr.

R = Control efficiency of control device as specified in paragraphs (c)(2)(i) through (c)(2)(iii) of this section.

n = Number of uncontrolled batch emission episodes, controlled batch emission episodes, and control devices. The value of n is not necessarily the same for these three items.

(i) If a performance test is required by paragraph (c) of this section, the control efficiency of the control device shall be as determined in paragraph (c)(1)(iv) of this section.

(ii) If a performance test is not required by paragraph (c) of this section for a combustion control device, as specified in paragraph (b) of this section, the control efficiency shall be 98 percent. The control efficiency for a flare shall be 98 percent.

(iii) If a performance test is not required by paragraph (c) of this section for a noncombustion control device, the control efficiency shall be determined by the owner or operator based on engineering assessment.

(d) *Batch process vent and aggregate batch vent stream testing for compliance with § 63.1322(c) [halogenated emission streams].* An owner or operator controlling halogenated emissions in compliance with § 63.1322(c) shall conduct a performance test to determine compliance with the control efficiency specified in § 63.1322(c)(1) or the emission limit specified in § 63.1322(c)(2) for hydrogen halides and halogens.

(1) Sampling sites shall be located at the inlet and outlet of the scrubber or other halogen reduction device used to reduce halogen emissions in complying with § 63.1322(c)(1) or at the outlet of the halogen reduction device used to reduce halogen emissions in complying with § 63.1322(c)(2).

(2) The mass emissions of each hydrogen halide and halogen compound for the batch cycle or aggregate batch vent stream shall be calculated from the measured concentrations and the gas stream flow rate(s) determined by the procedures specified in paragraphs (d)(2)(i) and (d)(2)(ii) of this section except as specified in paragraph (d)(5) of this section.

(i) Method 26 or Method 26A, 40 CFR part 60, appendix A, shall be used to determine the concentration, in Mg per dry scm, of total hydrogen halides and halogens present in the emissions stream.

(ii) Gas stream volumetric flow rate and/or average batch vent flow rate shall be determined as specified in § 63.1323(e).

(3) To determine compliance with the percent reduction specified in § 63.1322(c)(1), the mass emissions for any hydrogen halides and halogens present at the inlet of the scrubber or other halogen reduction device shall be summed together. The mass emissions of any hydrogen halides or halogens present at the outlet of the scrubber or other halogen reduction device shall be summed together. Percent reduction shall be determined by subtracting the outlet mass emissions from the inlet mass emissions and then dividing the result by the inlet mass emissions and multiplying by 100.

(4) To determine compliance with the emission limit specified in § 63.1322(c)(2), the annual mass emissions for any hydrogen halides and halogens present at the outlet of the halogen reduction

device and prior to any combustion device shall be summed together and compared to the emission limit specified in § 63.1322(c)(2).

(5) The owner or operator may use any other method to demonstrate compliance if the method or data has been validated according to the applicable procedures of Method 301 of appendix A of this part.

(e) *Aggregate batch vent stream testing for compliance with § 63.1322(b)(2) or (b)(3).* Except as specified in paragraphs (e)(1) through (e)(3) of this section, owners or operators of aggregate batch vent streams complying with § 63.1322(b)(2) or (b)(3) shall conduct a performance test using the performance testing procedures for continuous process vents in § 63.116(c).

(1) For purposes of this subpart, when the provisions of § 63.116(c) specify that Method 18, 40 CFR part 60, appendix A, shall be used, Method 18 or Method 25A, 40 CFR part 60, appendix A, may be used. The use of Method 25A, 40 CFR part 60, appendix A, shall conform with the requirements in paragraphs (e)(1)(i) and (e)(1)(ii) of this section.

(i) The organic HAP used as the calibration gas for Method 25A, 40 CFR part 60, appendix A, shall be the single organic HAP representing the largest percent by volume of the emissions.

(ii) The use of Method 25A, 40 CFR part 60, appendix A, is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(2) When § 63.116(c)(4) refers to complying with an emission reduction of 98 percent, for purposes of this subpart, the 90 percent reduction requirement specified in § 63.1322(b)(2) shall apply.

(3) When a combustion device is used to comply with the 20 parts per million by volume outlet concentration standard specified in § 63.1322(b)(2), the correction to 3 percent oxygen specified in the performance testing procedures of § 63.116(c)(3) and § 63.116(c)(3)(iii) is only required when supplemental combustion air is used to combust the emissions, for the purposes of this subpart.

(f) *Compliance with § 63.1322(a)(3) [new SAN batch affected sources].* Except as provided in paragraph (b) of this section, an owner or operator using a control or recovery device to comply with the percent reduction requirement in § 63.1322(a)(3) shall conduct performance tests as specified in either paragraph (f)(1), (f)(2), or (f)(3) of this section, as applicable. Compliance with § 63.1322(a)(3) shall be determined as specified in paragraph (f)(4) of this section.

(1) For batch process vents, performance tests shall be conducted using the procedures specified in paragraph (c) of this section, except that the owner or operator is not required to determine the percent reduction for the batch cycle as specified in paragraph (c)(2) of this section.

(2) For continuous process vents, performance tests shall be conducted as required by the applicable requirements of § 63.1315(a) as specified in § 63.1321(b).

(3) For aggregate batch vent streams, performance tests shall be conducted as specified in paragraph (e) of this section.

(4) Compliance with the percent reduction requirement of § 63.1322(a)(3) shall be demonstrated using the procedures specified in § 63.1333(c) and the control device efficiencies specified in either paragraph (f)(4)(i) or (f)(4)(ii) of this section. Emissions for uncontrolled continuous process vents and aggregate batch vent streams shall be determined based on the direct

measurement procedures specified in paragraph (f)(2) and (f)(3) of this section, respectively, or based on engineering assessment, as specified in § 63.1323(b)(6)(i). At the discretion of the owner or operator, emissions for uncontrolled batch process vents shall be determined based on any of the procedures in § 63.1323(b).

(i) For noncombustion devices, the control efficiency shall be as determined by the performance test required by paragraph (f)(1), (f)(2), or (f)(3) of this section. Alternatively, if a performance test is not required by paragraph (c) of this section, the control efficiency shall be determined by the owner or operator based on engineering assessment.

(ii) For combustion devices, the control efficiency shall be as determined by the performance test required by paragraph (f)(1), (f)(2), or (f)(3) of this section. Alternatively, if a performance test is not required, the control efficiency shall be 98 percent. The control efficiency for a flare shall be 98 percent.

(g) *Batch mass input limitation.* The batch mass input limitation required by § 63.1322(g)(1) shall be determined by the owner or operator such that annual emissions for the batch process vent remain less than the level specified in § 63.1323(d). The batch mass input limitation required by § 63.1322(f)(1) shall be determined by the owner or operator such that annual emissions remain at a level that ensures that said batch process vent remains a Group 2 batch process vent, given the actual annual flow rate for said batch process vent determined according to the procedures specified in § 63.1323(e)(3). The batch mass input limitation shall be determined using the same basis, as described in § 63.1323(a)(1), used to make the group determination (*i.e.*, expected mix of products or highest-HAP recipe.) The establishment of the batch mass input limitation is not dependent upon any past production or activity level.

(1) If the expected mix of products serves as the basis for the batch mass input limitation, the batch mass input limitation shall be determined based on any foreseeable combination of products that the owner or operator expects to manufacture.

(2) If the single highest-HAP recipe serves as the basis for the batch mass input limitation, the batch mass input limitation shall be determined based solely on the production of the single highest-HAP recipe, considering all products produced or processed in the batch unit operation.

**[40 CFR 63.1326]**

**Batch process vents -- recordkeeping provisions.**

(a) *Group determination records for batch process vents.* Except as provided in paragraphs (a)(7) and (a)(8) of this section, each owner or operator of an affected source shall maintain the records specified in paragraphs (a)(1) through (a)(6) of this section for each batch process vent subject to the group determination procedures of § 63.1323. Except for paragraph (a)(1) of this section, the records required by this paragraph (a) are restricted to the information developed and used to make the group determination under §§ 63.1323(b) through 63.1323(g), as appropriate. If an owner or operator did not need to develop certain information (*e.g.*, annual average batch vent flow rate) to determine the group status, this paragraph (a) does not require that additional information be developed. Paragraph (a)(9) of this section specifies the recordkeeping requirements for Group 2 batch process vents that are exempt from the batch mass input limitation provisions, as allowed under § 63.1322(h).

(1) An identification of each unique product that has emissions from one or more batch emission episodes venting from the batch process vent, along with an identification of the single highest-HAP recipe for each product and the mass of HAP fed to the reactor for that recipe.

(2) A description of, and an emission estimate for, each batch emission episode, and the total emissions associated with one batch cycle, as described in either paragraph (a)(2)(i) or (a)(2)(ii) of this section, as appropriate.

(i) If the group determination is based on the expected mix of products, records shall include the emission estimates for the single highest-HAP recipe of each unique product identified in paragraph (a)(1) of this section that was considered in making the group determination under § 63.1323.

(ii) If the group determination is based on the single highest-HAP recipe (considering all products produced or processed in the batch unit operation), records shall include the emission estimates for the single highest-HAP recipe.

(3) Total annual uncontrolled TOC or organic HAP emissions, determined at the exit from the batch unit operation before any control device, determined in accordance with § 63.1323(b).

(i) For Group 2 batch process vents, said emissions shall be determined at the batch mass input limitation.

(ii) For Group 1 batch process vents, said emissions shall be those used to determine the group status of the batch process vent.

(4) The annual average batch vent flow rate for the batch process vent, determined in accordance with § 63.1323(e).

(5) The cutoff flow rate, determined in accordance with § 63.1323(f).

(6) The results of the batch process vent group determination, conducted in accordance with § 63.1323(g).

(7) If a batch process vent is subject to § 63.1322(a) or (b), none of the records in paragraphs (a)(1) through (a)(6) of this section are required.

(8) If the total annual emissions from the batch process vent during the group determination are less than the appropriate level specified in § 63.1323(d), only the records in paragraphs (a)(1) through (a)(3) of this section are required.

(9) For each Group 2 batch process vent that is exempt from the batch mass input limitation provisions because it meets the criteria of § 63.1322(h), the records specified in paragraphs (a)(9)(i) and (ii) shall be maintained.

(i) Documentation of the maximum design capacity of the TPPU; and

(ii) The mass of HAP or material that can be charged annually to the batch unit operation at the maximum design capacity.

(b) *Compliance demonstration records.* Each owner or operator of a batch process vent or aggregate batch vent stream complying with § 63.1322(a) or (b), shall keep the following records, as applicable, readily accessible:

(1) The annual mass emissions of halogen atoms in the batch process vent or aggregate batch vent stream determined according to the procedures specified in § 63.1323(h);

(2) If the owner or operator of a batch process vent has chosen to comply with § 63.1322(a)(2), records documenting the batch cycle percent reduction as specified in § 63.1325(c)(2); and

(3) When using a flare to comply with § 63.1322 (a)(1), (a)(3), (b)(1), or (b)(3):

(i) The 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 § 63.1333(e); and

(iii) Periods when all pilot flames were absent.

(4) The following information when using a control device to meet the percent reduction requirement specified in § 63.1322(a)(2), (a)(3), (b)(2), or (b)(3):

(i) For an incinerator or non-combustion control device, the percent reduction of organic HAP or TOC achieved, as determined using the procedures specified in § 63.1325(c) for batch process vents and § 63.1325(e) for aggregate batch vent streams;

(ii) For a boiler or process heater, a description of the location at which the vent stream is introduced into the boiler or process heater;

(iii) For a boiler or process heater with a design heat input capacity of less than 44 megawatts and where the vent stream is introduced with combustion air or used as a secondary fuel and is not mixed with the primary fuel, the percent reduction of organic HAP or TOC achieved, as determined using the procedures specified in § 63.1325(c) for batch process vents and § 63.1325(e) for aggregate batch vent streams; and

(iv) For a scrubber or other halogen reduction device following a combustion device to control halogenated batch process vents or halogenated aggregate batch vent streams, the percent reduction of total hydrogen halides and halogens as determined under § 63.1325(d)(3) or the emission limit determined under § 63.1325(d)(4).

(5) When complying with the 20 parts per million by volume outlet concentration standard specified in § 63.1322(b)(2), records of the outlet concentration of organic HAP or TOC on a dry basis. If supplemental combustion air is used to combust the emissions, the outlet concentration shall be corrected to 3 percent oxygen. If supplemental combustion air is not used, a correction to 3 percent oxygen is not required.

(c) *Establishment of parameter monitoring level records.* For each parameter monitored according to § 63.1324(c) and Table 7 of this subpart, or for alternate parameters and/or parameters for alternate control devices monitored according to § 63.1327(f) as allowed under § 63.1324(d), maintain documentation showing the establishment of the level that indicates proper operation of the control device as required by § 63.1324(f) for parameters specified in § 63.1324(c) and as required by § 63.1335(e) for alternate parameters. Said documentation shall include the parameter monitoring data used to establish the level.

(d) *Group 2 batch process vent continuous compliance records.* The owner or operator of a Group 2 batch process vent shall comply with either paragraph (d)(1) or (d)(2) of this section, as appropriate.

(1) The owner or operator of a Group 2 batch process vent that has chosen to comply with § 63.1322(g) shall keep the following records readily accessible:

(i) Records designating the established batch mass input limitation required by § 63.1322(g)(1) and specified in § 63.1325(g).

(ii) Records specifying the mass of HAP or material charged to the batch unit operation.

(2) The owner or operator of a Group 2 batch process vent that has chosen to comply with § 63.1322(f) shall keep the following records readily accessible:

(i) Records designating the established batch mass input limitation required by § 63.1322(f)(1) and specified in § 63.1325(g).

(ii) Records specifying the mass of HAP or material charged to the batch unit operation.

(e) *Controlled batch process vent continuous compliance records.* Each owner or operator of a batch process vent that has chosen to use a control device to comply with § 63.1322(a) shall keep the following records, as applicable, readily accessible:

(1) Continuous records of the equipment operating parameters specified to be monitored under § 63.1324(c) as applicable, and listed in Table 7 of this subpart, or specified by the Administrator in accordance with § 63.1327(f) as allowed under § 63.1324(d). Said records shall be kept as specified under § 63.1335(d), except as specified in paragraphs (e)(1)(i) and (e)(1)(ii) of this section.

(i) For flares, the records specified in Table 7 of this subpart shall be maintained in place of continuous records.

(ii) For carbon adsorbers, the records specified in Table 7 of this subpart shall be maintained in place of batch cycle daily averages.

(2) Records of the batch cycle daily average value of each continuously monitored parameter, except as provided in paragraph (e)(2)(iii) of this section, as calculated using the procedures specified in paragraphs (e)(2)(i) and (e)(2)(ii) of this section.

(i) The batch cycle daily average shall be calculated as the average of all parameter values measured for an operating day during those batch emission episodes, or portions thereof, in the batch cycle that the owner or operator has selected to control.

(ii) 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 computing the batch cycle daily averages. In addition, monitoring data recorded during periods of non-operation of the TPPU (or specific portion thereof) resulting in cessation of organic HAP emissions, or periods of start-up, shutdown, or malfunction shall not be included in computing the batch cycle daily averages.

(iii) If all recorded values for a monitored parameter during an operating day are above the minimum or below the maximum level established in accordance with § 63.1324(f), the owner or operator may record that all values were above the minimum or below the maximum level established rather than calculating and recording a batch cycle daily average for that operating day.

(3) Hourly records of whether the flow indicator for bypass lines specified in § 63.1324(e)(1) was operating and whether a diversion was detected at any time during the hour. Also, records of the times of all periods when the vent is diverted from the control device or the flow indicator specified in § 63.1324(e)(1) is not operating.

(4) Where a seal or closure mechanism is used to comply with § 63.1324(e)(2), hourly records of whether a diversion was detected at any time are not required. The owner or operator shall record

whether the monthly visual inspection of the seals or closure mechanisms has been done, and shall record the occurrence of all periods when the seal mechanism is broken, the bypass line damper or valve position has changed, or the key for a lock-and-key type configuration has been checked out, and records of any car-seal that has broken.

(5) Records specifying the times and duration of periods of monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments. In addition, records specifying any other periods of process or control device operation when monitors are not operating.

(f) *Aggregate batch vent stream continuous compliance records.* In addition to the records specified in paragraphs (b) and (c) of this section, each owner or operator of an aggregate batch vent stream using a control device to comply with § 63.1322(b)(1) or (b)(2) shall keep the following records readily accessible:

(1) Continuous records of the equipment operating parameters specified to be monitored under § 63.1324(c) and listed in Table 7 of this subpart, as applicable, or specified by the Administrator in accordance with § 63.1327(f), as allowed under § 63.1324(d), with the exceptions listed in (f)(1)(i) and (f)(1)(ii) of this section.

(i) For flares, the records specified in Table 7 of this subpart shall be maintained in place of continuous records.

(ii) For carbon adsorbers, the records specified in Table 7 of this subpart shall be maintained in place of daily averages.

(2) Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in § 63.1335(d).

(3) For demonstrating compliance with the monitoring of bypass lines as specified in § 63.1324(e), records as specified in paragraphs (e)(3) or (e)(4) of this section, as appropriate.

(g) Documentation supporting the establishment of the batch mass input limitation shall include the information specified in paragraphs (g)(1) through (g)(5) of this section, as appropriate.

(1) Identification of whether the purpose of the batch mass input limitation is to comply with § 63.1322(f)(1) or (g)(1).

(2) Identification of whether the batch mass input limitation is based on the single highest-HAP recipe (considering all products) or on the expected mix of products for the batch process vent as allowed under § 63.1323(a)(1).

(3) Definition of the operating year, for the purposes of determining compliance with the batch mass input limitation.

(4) If the batch mass input limitation is based on the expected mix of products, the owner or operator shall provide documentation that describes as many scenarios for differing mixes of products (*i.e.,* how many of each type of product) as the owner or operator desires the flexibility to accomplish. Alternatively, the owner or operator shall provide a description of the relationship among the mix of products that will allow a determination of compliance with the batch mass input limitation under any number of scenarios.

(5) The mass of HAP or material allowed to be charged to the batch unit operation per year under the batch mass input limitation.

**[40 CFR 63.1327]**

**Batch process vents -- reporting requirements.**

(a) The owner or operator of a batch process vent or aggregate batch vent stream at an affected source shall submit the information specified in paragraphs (a)(1) through (a)(6) of this section, as appropriate, as part of the Notification of Compliance Status specified in § 63.1335(e)(5).

(1) For each batch process vent complying § 63.1322(a) and each aggregate batch vent stream complying § 63.1322(b), the information specified in § 63.1326 (b) and (c), as applicable.

(2) For each Group 2 batch process vent with annual emissions less than the level specified in § 63.1323(d), the information specified in § 63.1326(d)(1)(i).

(3) For each Group 2 batch process vent with annual emissions greater than or equal to the level specified in § 63.1323(d), the information specified in § 63.1326(d)(2)(i).

(4) For each batch process vent subject to the group determination procedures, the information specified in § 63.1326(a), as appropriate.

(5) For each Group 2 batch process vent that is exempt from the batch mass input limitation provisions because it meets the criteria of § 63.1322(h), the information specified in § 63.1326(a)(1) through (3), and the information specified in § 63.1326(a)(4) through (6) as applicable, calculated at the conditions specified in § 63.1322(h).

(6) When engineering assessment has been used to estimate emissions from a batch emissions episode and the criteria specified in § 63.1323(b)(6)(i)(A) or (B) have been met, the owner or operator shall submit the information demonstrating that the criteria specified in § 63.1323(b)(6)(i)(A) or (B) have been met as part of the Notification of Compliance Status required by § 63.1335(e)(5).

(b) Whenever a process change, as defined in § 63.1323(i)(1), is made that causes a Group 2 batch process vent to become a Group 1 batch process vent, the owner or operator shall notify the Administrator and submit a description of the process change within 180 days after the process change is made or with the next Periodic Report, whichever is later. The owner or operator of an affected source shall comply with the Group 1 batch process vent provisions in §§ 63.1321 through 63.1327 in accordance with § 63.1310(i)(2)(ii).

(c) Whenever a process change, as defined in § 63.1323(i)(1), is made that causes a Group 2 batch process vent with annual emissions less than the level specified in § 63.1323(d) for which the owner or operator has chosen to comply with § 63.1322(g) to have annual emissions greater than or equal to the level specified in § 63.1323(d) but remains a Group 2 batch process vent, or if a process change is made that requires the owner or operator to redetermine the batch mass input limitation as specified in § 63.1323(i)(3), the owner or operator shall submit a report within 180 days after the process change is made or with the next Periodic Report, whichever is later. The following information shall be submitted:

(1) A description of the process change;

(2) The batch mass input limitation determined in accordance with § 63.1322(f)(1).

(d) Whenever a process change, as defined in § 63.1323(j)(1), is made that could potentially cause the percent reduction for all process vents at a new SAN affected source using a batch process to

be less than 84 percent, the owner or operator shall notify the Administrator and submit a description of the process change within 180 days after the process change is made or with the next Periodic Report, whichever is later. The owner or operator shall comply with § 63.1322(a)(3) and all associated provisions in accordance with § 63.1310(i).

(e) The owner or operator is not required to submit a report of a process change if one of the conditions specified in paragraphs (e)(1) or (e)(2) of this section is met.

(1) The change does not meet the description of a process change in § 63.1323(i) or (j).

(2) The redetermined group status remains Group 2 for an individual batch process vent with annual emissions greater than or equal to the level specified in § 63.1323(d) and the batch mass input limitation does not decrease, a Group 2 batch process vent with annual emissions less than the level specified in § 63.1323(d) complying with § 63.1322(g) continues to have emissions less than the level specified in § 63.1323(d) and the batch mass input limitation does not decrease, or the achieved emission reduction remains at 84 percent or greater for new SAN affected sources using a batch process.

(f) If an owner or operator uses a control device other than those specified in § 63.1324(c) and listed in Table 7 of this subpart or requests approval to monitor a parameter other than those specified § 63.1324(c) and listed in Table 7 of this subpart, the owner or operator shall submit a description of planned reporting and recordkeeping procedures, as specified in § 63.1335(f), as part of the Precompliance Report required under § 63.1335(e)(3). The Administrator will specify appropriate reporting and recordkeeping requirements as part of the review of the Precompliance Report.

(g) Owners or operators of affected sources complying with § 63.1324(e), shall comply with paragraph (g)(1) or (g)(2) of this section, as appropriate.

(1) Submit reports of the times of all periods recorded under § 63.1326(e)(3) when the batch process vent is diverted from the control device through a bypass line, with the next Periodic Report.

(2) Submit reports of all occurrences recorded under § 63.1326(e)(4) in which the seal mechanism is broken, the bypass line damper or valve position has changed, or the key to unlock the bypass line damper or valve was checked out, with the next Periodic Report.

**[40 CFR 63.1328]**

**Heat exchange systems provisions.**

(a) Except as specified in paragraph (b) of this section, each owner or operator of an affected source shall comply with § 63.104, with the differences noted in paragraphs (c) through (h) of this section, for the purposes of this subpart.

(b) The provisions of paragraph (a) of this section do not apply to each process contact cooling tower that is associated with an existing affected source manufacturing PET.

(c) When the term "chemical manufacturing process unit" is used in § 63.104, the term "thermoplastic product process unit" shall apply for purposes of this subpart, with the exception noted in paragraph (d) of this section.

(d) When the phrase "a chemical manufacturing process unit meeting the conditions of § 63.100(b)(1) through (b)(3) of this subpart, except for chemical manufacturing process units

meeting the condition specified in § 63.100(c) of this subpart" is used in § 63.104(a), the term "a TPPU, except for TPPUs meeting the condition specified in § 63.1310(b)" shall apply for purposes of this subpart.

(e) When § 63.104 refers to Table 4 of subpart F of this part or Table 9 of subpart G of this part, the owner or operator is only required to consider organic HAP listed on Table 6 of this subpart, except for ethylene glycol which need not be considered under this section, for purposes of this subpart.

(f) When § 63.104(c)(3) specifies the monitoring plan retention requirements, and when § 63.104(f)(1) refers to the record retention requirements in § 63.103(c)(1), the requirements in §§ 63.1335(a) and 63.1335(h) shall apply, for purposes of this subpart.

(g) When § 63.104(f)(2) requires information to be reported in the Periodic Reports required by § 63.152(c), the owner or operator shall instead report the information specified in § 63.104(f)(2) in the Periodic Reports required by § 63.1335(e)(6), for the purposes of this subpart.

(h) The compliance date for heat exchange systems subject to the provisions of this section is specified in § 63.1311

**[40 CFR 63.1329]**

**Process contact cooling towers provisions.**

(a) The owner or operator of each new affected source that manufactures PET is required to comply with paragraph (b) of this section. The owner or operator of each existing affected source that manufactures PET using a continuous terephthalic acid high viscosity multiple end finisher process that utilizes a process contact cooling tower shall comply with paragraph (c) of this section, and is not required to comply with paragraph (b) of this section. The compliance date for process contact cooling towers subject to the provisions of this section is specified in § 63.1311.

(b) *New affected source requirements.* The owner or operator of a new affected source subject to this section shall comply with paragraphs (b)(1) through (b)(2) of this section.

(1) The owner or operator of a new affected source subject to this section shall not send contact condenser effluent associated with a vacuum system to a process contact cooling tower.

(2) The owner or operator of a new affected source subject to this section shall indicate in the Notification of Compliance Status, as required in § 63.1335(e)(5), that contact condenser effluent associated with vacuum systems is not sent to process contact cooling towers.

(c) *Existing affected source requirements.* The owner or operator of an existing affected source subject to this section who manufactures PET using a continuous terephthalic acid high viscosity multiple end finisher process, and who is subject or becomes subject to 40 CFR part 60, subpart DDD, shall maintain an ethylene glycol concentration in the process contact cooling tower at or below 4.0 percent by weight averaged on a daily basis over a rolling 14-day period of operating days. Compliance with this paragraph (c) shall be determined as specified in paragraphs (c)(1) through (c)(4) of this section. It should be noted that compliance with this paragraph (c) does not exempt owners or operators from complying with the provisions of § 63.1330 for those process wastewater streams that are sent to the process contact cooling tower.

(1) To determine the ethylene glycol concentration, owners or operators shall follow the procedures specified in 40 CFR 60.564(j)(1), except as provided in paragraph (c)(2) of this section.

(i) At least one sample per operating day shall be collected using the procedures specified in 40 CFR 60.564(j)(1)(i). An average ethylene glycol concentration by weight shall be calculated on a daily basis over a rolling 14-day period of operating days. Each daily average ethylene glycol concentration so calculated constitutes a performance test.

(ii) The owner or operator may elect to reduce the sampling program to any 14 consecutive operating day period once every two calendar months, if at least seventeen consecutive 14-day rolling average concentrations immediately preceding the reduced sampling program are each less than 1.2 weight percent ethylene glycol. If the average concentration obtained over the 14 operating day sampling during the reduced test period exceeds the upper 95 percent confidence interval calculated from the most recent test results in which no one 14-day average exceeded 1.2 weight percent ethylene glycol, then the owner or operator shall reinstitute a daily sampling program. The 95 percent confidence interval shall be calculated as specified in paragraph (c)(1)(iii) of this section. A reduced program may be reinstituted if the requirements specified in this paragraph (c)(1)(ii) are met.

(iii) The upper 95 percent confidence interval shall be calculated using the Equation 27 of this subpart:

$$CI_{95} = \frac{\sum_{i=1}^{n} X_i}{n} + 2\sqrt{\frac{n\sum_{i=1}^{n}\left(X_i^2\right) - \left(\sum_{i=1}^{n} X_i\right)^2}{n(n-1)}} \qquad [Eq.\ 27]$$

Where:

CI95 = 95 percent confidence interval

Xi = daily ethylene glycol concentration for each operating day used to calculate each 14-day rolling average used in test results to justify implementing the reduced testing program.

n = number of ethylene glycol concentrations.

(2) Measuring an alternative parameter, such as carbon oxygen demand or biological oxygen demand, that is demonstrated to be directly proportional to the ethylene glycol concentration shall be allowed. Such parameter shall be measured during the initial 14-day performance test during which the facility is shown to be in compliance with the ethylene glycol concentration standard whereby the ethylene glycol concentration is determined using the procedures described in paragraph (c)(1) of this section. The alternative parameter shall be measured on a daily basis and the average value of the alternative parameter shall be calculated on a daily basis over a rolling 14-day period of operating days. Each daily average value of the alternative parameter constitutes a performance test.

(3) During each performance test, daily measurement and daily average 14-day rolling averages of the ethylene glycol concentration in the cooling tower water shall be recorded. For the initial performance test, these records shall be submitted in the Notification of Compliance Status report.

(4) All periods when the 14-day rolling average exceeds the standard shall be reported in the Periodic Report.

**[40 CFR 63.1330]**

**Wastewater provisions.**

(a) Except as specified in paragraphs (d) and (e) of this section, the owner or operator of each affected source shall comply with paragraphs (b) and (c) of this section.

(b) The owner or operator of each affected source shall comply with the requirements of §§ 63.132 through 63.149, with the differences noted in paragraphs (b)(1) through (b)(22) of this section for the purposes of this subpart.

(1) When the determination of equivalence criteria in § 63.102(b) is referred to in §§ 63.132, 63.133, and 63.137, the provisions in § 63.6(g) shall apply for the purposes of this subpart.

(2) When the storage vessel requirements contained in §§ 63.119 through 63.123 are referred to in §§ 63.132 through 63.149, §§ 63.119 through 63.123 are applicable, with the exception of the differences referred to in § 63.1314, for the purposes of this subpart.

(3) When § 63.146(a) requires the submission of a request for approval to monitor alternative parameters according to the procedures specified in § 63.151(f) or (g), owners or operators requesting to monitor alternative parameters shall follow the procedures specified in § 63.1335(f) for the purposes of this subpart.

(4) When § 63.147(d) requires owners or operators to keep records of the daily average value of each continuously monitored parameter for each operating day as specified in § 63.152(f), owners and operators shall instead keep records of the daily average value of each continuously monitored parameter as specified in § 63.1335(d) for the purposes of this subpart.

(5) When §§ 63.132 through 63.149 refer to an "existing source," the term "existing affected source," as defined in § 63.1310(a), shall apply for the purposes of this subpart.

(6) When §§ 63.132 through 63.149 refer to a "new source," the term "new affected source," as defined in § 63.1310(a), shall apply for the purposes of this subpart.

(7) When § 63.132(a) and (b) refer to the "applicable dates specified in § 63.100 of subpart F of this part," the compliance dates specified in § 63.1311 shall apply for the purposes of this subpart.

(8) The provisions of paragraphs (b)(8)(i), (b)(8)(ii), and (b)(8)(iii) of this section clarify the organic HAP that an owner or operator shall consider when complying with the requirements in §§ 63.132 through 63.149.

(i) When §§ 63.132 through 63.149 refer to table 8 compounds, the owner or operator is only required to consider 1,3-butadiene for purposes of this subpart.

(ii) When §§ 63.132 through 63.149 refer to table 9 compounds, the owner or operator is only required to consider compounds that meet the definition of organic HAP in § 63.1312 and that are listed on table 9 of 40 CFR part 63, subpart G, for the purposes of this subpart, except for ethylene glycol which need not be considered.

(iii) When §§ 63.132 through 63.149 refer to compounds in table 36 of 40 CFR part 63, subpart G, or compounds on List 1 and/or List 2, as listed on table 36 of 40 CFR part 63, subpart G, the owner or operator is only required to consider compounds that meet the definition of organic HAP in § 63.1312 and that are listed in table 36 of 40 CFR part 63, subpart G, for the purposes of this subpart.

(9) Whenever §§ 63.132 through 63.149 refer to a "chemical manufacturing process unit," the term "thermoplastic product process unit," (or TPPU) as defined in § 63.1312, shall apply for the purposes of this subpart. In addition, when § 63.149 refers to "a chemical manufacturing process unit that meets the criteria of § 63.100(b) of subpart F of this part," the term "a TPPU as defined in § 63.1312(b)" shall apply for the purposes of this subpart.

(10) Whenever §§ 63.132 through 63.149 refer to a Group 1 wastewater stream or a Group 2 wastewater stream, the definitions of these terms contained in § 63.1312 shall apply for the purposes of this subpart.

(11) When § 63.149(d) refers to "§ 63.100(f) of subpart F", the phrase "§ 63.1310(c)" shall apply for the purposes of this subpart. In addition, where § 63.149(d) states "and the item of equipment is not otherwise exempt from controls by the provisions of subpart A, F, G, or H of this part", the phrase "and the item of equipment is not otherwise exempt from controls by the provisions of subparts A, F, G, H, or JJJ of this part" shall apply for the purposes of this subpart.

(12) When § 63.149(e)(1) and (e)(2) refer to "a chemical manufacturing process unit subject to the new source requirements of 40 CFR § 63.100(l)(1) or 40 CFR § 63.100(l)(2)," the phrase "a TPPU that is part of a new affected source or that is a new affected source," shall apply for the purposes of this subpart.

(13) When the Notification of Compliance Status requirements contained in § 63.152(b) are referred to in §§ 63.138 and 63.146, the Notification of Compliance Status requirements contained in § 63.1335(e)(5) shall apply for the purposes of this subpart. In addition, when §§ 63.132 through 63.149 require that information be reported according to § 63.152(b) in the Notification of Compliance Status, the owner or operator of an affected source shall report the specified information in the Notification of Compliance Status required by § 63.1335(e)(5) for the purposes of this subpart.

(14) When the Periodic Report requirements contained in § 63.152(c) are referred to in § 63.146, the Periodic Report requirements contained in § 63.1335(e)(6) shall apply for the purposes of this subpart. In addition, when §§ 63.132 through 63.149 require that information be reported in the Periodic Reports required in § 63.152(c), the owner or operator of an affected source shall report the specified information in the Periodic Reports required in § 63.1335(e)(6) for the purposes of this subpart.

(15) When § 63.143(f) specifies that owners or operators shall establish the range that indicates proper operation of the treatment process or control device, the owner or operator shall instead comply with the requirements of § 63.1334(c) or (d) for establishing parameter level maximums/minimums for the purposes of this subpart.

(16) When § 63.146(b)(7) and § 63.146(b)(8) require that "the information on parameter ranges specified in § 63.152(b)(2)" be reported in the Notification of Compliance Status, owners and operators of affected sources are instead required to report the information on parameter levels as specified in § 63.1335(e)(5)(ii) for the purposes of this subpart.

(17) When the term "range" is used in §§ 63.132 through 63.149, the term "level" apply instead for the purposes of this subpart. This level shall be determined using the procedures specified in § 63.1334.

(18) For the purposes of this subpart, the owner or operator of an affected source is not required to include process wastewater streams that contain styrene when conducting performance tests for the purposes of calculating the required mass removal (RMR) or the actual mass removal (AMR) under the provisions described in § 63.145(f) or § 63.145(g). For purposes of this paragraph, a process wastewater stream is considered to contain styrene if the wastewater stream meets the requirements in paragraph (b)(18)(i), (ii), (iii), (iv), or (v) of this section.

(i) The wastewater stream originates at equipment that produces ABS or ABS latex;

(ii) The wastewater stream originates at equipment that produces EPS;

(iii) The wastewater stream originates at equipment that produces MABS;

(iv) The wastewater stream originates at equipment that produces MBS; or

(v) The wastewater stream originates at equipment that produces SAN.

(19) When the provisions of § 63.139(c)(1)(ii), § 63.145(d)(4), or § 63.145(i)(2) specify that Method 18, 40 CFR part 60, appendix A, shall be used, Method 18 or Method 25A, 40 CFR part 60, appendix A, may be used for the purposes of this subpart. The use of Method 25A, 40 CFR part 60, appendix A, shall conform with the requirements in paragraphs (b)(19)(i) and (b)(19)(ii) of this section.

(i) The organic HAP used as the calibration gas for Method 25A, 40 CFR part 60, appendix A, shall be the single organic HAP representing the largest percent by volume of the emissions.

(ii) The use of Method 25A, 40 CFR part 60, appendix A, is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(20) In § 63.145(j), instead of the reference to § 63.11(b), and instead of § 63.145(j)(1) and § 63.145(j)(2), the requirements in § 63.1333(e) shall apply.

(21) The owner or operator of a facility which receives a Group 1 wastewater stream, or a residual removed from a Group 1 wastewater stream, for treatment pursuant to § 63.132(g) is subject to the requirements of § 63.132(g) with the differences identified in this section, and is not subject to subpart DD of this part with respect to that material.

(22) When § 63.132(g) refers to "§§ 63.133 through 63.137" or "§§ 63.133 through 63.147", the provisions in this section 63.1330 shall apply, for the purposes of this subpart.

(c) For each affected source, the owner or operator shall comply with the requirements for maintenance wastewater in § 63.105, except that when § 63.105(a) refers to "organic HAPs listed in table 9 of subpart G of this part," the owner or operator is only required to consider compounds that meet the definition of organic HAP in § 63.1312 and that are listed in table 9 of 40 CFR part 63, subpart G, except for ethylene glycol which need not be considered, for the purposes of this subpart.

(d) The provisions of paragraph (b) of this section do not apply to each affected source producing ASA/AMSAN.

(e) The provisions of paragraphs (b) and (c) of this section do not apply to each affected source producing polystyrene using either a continuous or batch process.

**[40 CFR 63.1331]**

**Equipment leak provisions.**

(a) Except as provided for in paragraphs (b) and (c) of this section, the owner or operator of each affected source shall comply with the requirements of subpart H of this part, with the differences noted in paragraphs (a)(1) through (a)(13) of this section.

(1) For an affected source producing polystyrene resin, the indications of liquids dripping, as defined in subpart H of this part, from bleed ports in pumps and agitator seals in light liquid service shall not be considered to be a leak. For purposes of this subpart, a "bleed port" is a technologically-required feature of the pump or seal whereby polymer fluid used to provide lubrication and/or cooling of the pump or agitator shaft exits the pump, thereby resulting in a visible dripping of fluid.

(2) The compliance date for the equipment leak provisions contained in this section is provided in § 63.1311. Whenever subpart H of this part refers to the compliance dates specified in any paragraph contained in § 63.100, the compliance dates listed in § 63.1311(d) shall instead apply, for the purposes of this subpart. When § 63.182(c)(4) refers to "sources subject to subpart F," the phrase "sources subject to this subpart" shall apply, for the purposes of this subpart. In addition, extensions of compliance dates are addressed by § 63.1311(e) instead of § 63.182(a)(6), for the purposes of this subpart.

(3) Owners and operators of an affected source subject to this subpart are not required to submit the Initial Notification required by § 63.182(a)(1) and § 63.182(b).

(4) As specified in § 63.1335(e)(5), the Notification of Compliance Status required by paragraphs § 63.182(a)(2) and § 63.182(c) shall be submitted within 150 days (rather than 90 days) of the applicable compliance date specified in § 63.1311 for the equipment leak provisions.

(5) The information specified by § 63.182(a)(3) and § 63.182(d) (*i.e.*, Periodic Reports) shall be submitted as part of the Periodic Reports required by § 63.1335(e)(6).

(i) A leak is determined to be detected if there is evidence of a potential leak found by visual, audible, or olfactory means. Method 21, 40 CFR part 60, appendix A may not be used to determine the presence or absence of a leak.

(ii)(A) When a leak is detected, it shall be repaired as soon as practical, but not later than 15 days after it is detected, except as provided in § 63.171.

(B) The first attempt at repair shall be made no later than 5 days after each leak is detected.

(C) Repaired shall mean that the visual, audible, olfactory, or other indications of a leak have been eliminated; that no bubbles are observed at potential leak sites during a leak check using soap solution; or that the system will hold a test pressure.

(iii) An owner or operator is not required to develop an initial list of identification numbers as would otherwise be required under § 63.181(b)(1)(i) or § 63.181(b)(4).

(iv) When recording the detection of a leak under § 63.182(d)(1), the owner or operator of an affected source shall comply with paragraphs (a)(6)(iv)(A) through (a)(6)(iv)(B) of this section.

(A) When complying with § 63.181(d)(1), provide an identification number for the leaking equipment at the time of recordkeeping. Further, the owner or operator is not required to record the identification number of the instrument (*i.e.*, Method 21 instrument) because the use of Method 21 is not an acceptable method for determining a leak under this paragraph (a)(6).

(B) An owner or operator is not required to comply with § 63.181(d)(4) which requires a record of the maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A.

(v) Indications of liquids dripping, as defined in subpart H of this part, from packing glands for pumps in ethylene glycol service where the pump seal is designed to weep fluid shall not be considered to be a leak. Ethylene glycol dripping from pump seals must be captured in a catchpan and returned to the process.

(7) When § 63.166(b)(4)(i) refers to Table 9 of subpart G of this part, the owner or operator is only required to consider organic HAP listed on Table 6 of this subpart for purposes of this subpart, except for ethylene glycol which need not be considered.

(8) When the provisions of subpart H of this part specify that Method 18, 40 CFR part 60, appendix A, shall be used, Method 18 or Method 25A, 40 CFR part 60, appendix A, may be used for the purposes of this subpart. The use of Method 25A, 40 CFR part 60, appendix A, shall conform with the requirements in paragraphs (a)(8)(i) and (a)(8)(ii) of this section.

(i) The organic HAP used as the calibration gas for Method 25A, 40 CFR part 60, appendix A, shall be the single organic HAP representing the largest percent by volume of the emissions.

(ii) The use of Method 25A, 40 CFR part 60, appendix A, is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(9) [Reserved]

(10) If specific items of equipment, comprising part of a process unit subject to this subpart, are managed by different administrative organizations (*e.g.*, different companies, affiliates, departments, divisions, *etc.*), those items of equipment may be aggregated with any TPPU within the affected source for all purposes under subpart H of this part, providing there is no delay in achieving the applicable compliance date.

(11) When the terms "equipment" and "equipment leak" are used in subpart H of this part, the definitions of these terms in § 63.1312 shall apply for the purposes of this subpart.

(12) The phrase "the provisions of subparts F, I, or JJJ of this part" shall apply instead of the phrase "the provisions of subpart F or I of this part" throughout §§ 63.163 and 63.168, for the purposes of this subpart. In addition, the phrase "subparts F, I, and JJJ" shall apply instead of the phrase "subparts F and I" in § 63.174(c)(2)(iii), for the purposes of this subpart.

(13) An owner or operator using a flare to comply with the requirements of this section shall conduct a compliance demonstration as specified in § 63.1333(e).

(b) The provisions of this section do not apply to each TPPU producing PET using a process other than a continuous terephthalic acid (TPA) high viscosity multiple end finisher process that is part

of an affected source if all of the equipment leak components subject to this section § 63.1331 in the TPPU are either in vacuum service or in heavy liquid service.

(1) Owners and operators of a TPPU exempted under paragraph (b) of this section shall comply with paragraph (b)(1)(i) or (b)(1)(ii) of this section.

(i) Retain information, data, and analyses used to demonstrate that all of the components in the exempted TPPU are either in vacuum service or in heavy liquid service. For components in vacuum service, examples of information that could document this include, but are not limited to, analyses of process stream composition and process conditions, engineering calculations, or process knowledge. For components in heavy liquid service, such documentation shall include an analysis or demonstration that the process fluids do not meet the criteria of "in light liquid service" or "in gas or vapor service."

(ii) When requested by the Administrator, demonstrate that all of the components in the TPPU are either in vacuum service or in heavy liquid service.

(2) If changes occur at a TPPU exempted under paragraph (b) of this section such that all of the components in the TPPU are no longer either in vacuum service or in heavy liquid service (*e.g.*, by either process changes or the addition of new components), the owner or operator of the affected source shall comply with the provisions of this section for all of the components at the TPPU. The owner or operator shall submit a report within 180 days after the process change is made or the information regarding the process change is known to the owner or operator. This report may be included in the next Periodic Report, as specified in paragraph (a)(5) of this section. A description of the process change shall be submitted with this report.

(c) The provisions of this section do not apply to each affected source producing PET using a continuous TPA high viscosity multiple end finisher process.

**[40 CFR 63.1332]**

**Emissions averaging provisions.**

(a) This section applies to owners or operators of existing affected sources who seek to comply with § 63.1313(b) by using emissions averaging rather than following the provisions of §§ 63.1314, 63.1315, 63.1316 through 63.1320, 63.1321, and 63.1330.

(1) The following emission point limitations apply to the use of these provisions:

(i) All emission points included in an emissions average shall be from the same affected source. There may be an emissions average for each affected source located at a plant site.

(ii)(A) If a plant site has only one affected source for which emissions averaging is being used to demonstrate compliance, the number of emission points allowed in the emissions average for said affected source is limited to twenty. This number may be increased by up to five additional emission points if pollution prevention measures are used to control five or more of the emission points included in the emissions average.

(B) If a plant site has two or more affected sources for which emissions averaging is being used to demonstrate compliance, the number of emission points allowed in the emissions averages for said affected sources is limited to twenty. This number may be increased by up to five additional emission points if pollution prevention measures are used to control five or more of the emission points included in the emissions averages.

(2) Compliance with the provisions of this section may be based on either organic HAP or TOC.

(3) For the purposes of these provisions, whenever Method 18, 40 CFR part 60, appendix A, is specified within the paragraphs of this section or is specified by reference through provisions outside this section, Method 18 or Method 25A, 40 CFR part 60, appendix A, may be used. The use of Method 25A, 40 CFR part 60, appendix A, shall conform with the requirements in paragraphs (a)(3)(i) and (a)(3)(ii) of this section.

(i) The organic HAP used as the calibration gas for Method 25A, 40 CFR part 60, appendix A shall be the single organic HAP representing the largest percent by volume of the emissions.

(ii) The use of Method 25A, 40 CFR part 60, appendix A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(b) Unless an operating permit application has been submitted, the owner or operator shall develop and submit for approval an Emissions Averaging Plan containing all of the information required in § 63.1335(e)(4) for all emission points to be included in an emissions average.

(c) Paragraphs (c)(1) through (c)(5) of this section describe the emission points that may be used to generate emissions averaging credits if control was applied after November 15, 1990, and if sufficient information is available to determine the appropriate value of credits for the emission point. Paragraph (c)(6) of this section discusses the use of pollution prevention in generating emissions averaging credits.

(1) Storage vessels, batch process vents, aggregate batch vent streams, continuous process vents subject to § 63.1315, and process wastewater streams that are determined to be Group 2 emission points. The term "continuous process vents subject to § 63.1315" includes continuous process vents subject to § 63.1316 (b)(1)(iii), (b)(2)(iii), and (c)(2), which reference § 63.1315.

(2) Continuous process vents located in the collection of material recovery sections within the affected source at an existing affected source producing PET using a continuous dimethyl terephthalate process subject to § 63.1316(b)(1)(i) where the uncontrolled organic HAP emissions from said continuous process vents are equal to or less than 0.12 kg organic HAP per Mg of product. These continuous process vents shall be considered Group 2 emission points for the purposes of this section.

(3) Storage vessels, continuous process vents subject to § 63.1315, and process wastewater streams that are determined to be Group 1 emission points and that are controlled by a technology that the Administrator or permitting authority agrees has a higher nominal efficiency than the reference control technology. Information on the nominal efficiencies for such technologies shall be submitted and approved as provided in paragraph (i) of this section.

(4) Batch process vents and aggregate batch vent streams that are determined to be Group 1 emission points and that are controlled to a level more stringent than the applicable standard.

(5) Continuous process vents subject to § 63.1316 (b)(1)(i), (b)(1)(ii), (b)(2)(i), (b)(2)(ii), or (c)(1) located in the collection of process sections within the affected source, as specified in paragraphs (c)(5)(i) through (c)(5)(ii) of this section. The continuous process vents identified in paragraphs (c)(5)(i) through (c)(5)(ii) of this section shall be considered to be Group 1 emission points for the purposes of this section.

(i) Continuous process vents subject to § 63.1316(b)(1)(i) located in the collection of material recovery sections within the affected source where the uncontrolled organic HAP emissions for said continuous process vents are greater than 0.12 kg organic HAP per Mg of product and said continuous process vents are controlled to a level more stringent than the applicable standard.

(ii) Continuous process vents subject to § 63.1316(b)(1)(ii), (b)(2)(i), (b)(2)(ii), or (c)(1) located in the collection of process sections within the affected source where the uncontrolled organic HAP emissions from said continuous process vents are controlled to a level more stringent than the applicable standard.

(6) The percent reduction for any storage vessel, batch process vent, aggregate batch vent stream, continuous process vent, and process wastewater stream from which emissions are reduced by pollution prevention measures shall be determined using the procedures specified in paragraph (j) of this section.

(i) For a Group 1 storage vessel, batch process vent, aggregate batch vent stream, continuous process vent, or process wastewater stream, the pollution prevention measure must reduce emissions more than if the applicable reference control technology or standard had been applied to the emission point instead of the pollution prevention measure, except as provided in paragraph (c)(6)(ii) of this section.

(ii) If a pollution prevention measure is used in conjunction with other controls for a Group 1 storage vessel, batch process vent, aggregate batch vent stream, continuous process vent, or process wastewater stream, the pollution prevention measure alone does not have to reduce emissions more than the applicable reference control technology or standard, but the combination of the pollution prevention measure and other controls must reduce emissions more than if the applicable reference control technology or standard had been applied instead of the pollution prevention measure.

(d) The following emission points cannot be used to generate emissions averaging credits:

(1) Emission points already controlled on or before November 15, 1990, cannot be used to generate credits unless the level of control is increased after November 15, 1990. In this case, credit will be allowed only for the increase in control after November 15, 1990.

(2) Group 1 emission points, identified in paragraph (c)(3) of this section, that are controlled by a reference control technology cannot be used to generate credits unless the reference control technology has been approved for use in a different manner and a higher nominal efficiency has been assigned according to the procedures in paragraph (i) of this section.

(3) Emission points for nonoperating TPPU cannot be used to generate credits. TPPU that are shutdown cannot be used to generate credits or debits.

(4) Maintenance wastewater cannot be used to generate credits. Wastewater streams treated in biological treatment units cannot be used to generate credits. These two types of wastewater cannot be used to generate credits or debits. For the purposes of this section, the terms wastewater and wastewater stream are used to mean process wastewater.

(5) Emission points controlled to comply with a State or Federal rule other than this subpart cannot be used to generate credits, unless the level of control has been increased after November 15, 1990, to a level above what is required by the other State or Federal rule. Only the control above what is required by the other State or Federal rule will be credited. However, if an emission point has been used to generate emissions averaging credit in an approved emissions average, and

the emission point is subsequently made subject to a State or Federal rule other than this subpart, the emission point may continue to generate emissions averaging credit for the purpose of complying with the previously approved emissions average.

(e) For all emission points included in an emissions average, the owner or operator shall perform the following tasks:

(1) Calculate and record monthly debits for all Group 1 emission points that are controlled to a level less stringent than the reference control technology or standard for those emission points. Said Group 1 emission points are identified in paragraphs (c)(3) through (c)(5) of this section. Equations in paragraph (g) of this section shall be used to calculate debits.

(2) Calculate and record monthly credits for all Group 1 and Group 2 emission points that are over-controlled to compensate for the debits. Equations in paragraph (h) of this section shall be used to calculate credits. Emission points and controls that meet the criteria of paragraph (c) of this section may be included in the credit calculation, whereas those described in paragraph (d) of this section shall not be included.

(3) Demonstrate that annual credits calculated according to paragraph (h) of this section are greater than or equal to debits calculated for the same annual compliance period according to paragraph (g) of this section.

(i) The owner or operator may choose to include more than the required number of credit-generating emission points in an emissions average in order to increase the likelihood of being in compliance.

(ii) The initial demonstration in the Emissions Averaging Plan or operating permit application that credit-generating emission points will be capable of generating sufficient credits to offset the debits from the debit-generating emission points shall be made under representative operating conditions. After the compliance date, actual operating data will be used for all debit and credit calculations.

(4) Demonstrate that debits calculated for a quarterly (3-month) period according to paragraph (g) of this section are not more than 1.30 times the credits for the same period calculated according to paragraph (h) of this section. Compliance for the quarter shall be determined based on the ratio of credits and debits from that quarter, with 30 percent more debits than credits allowed on a quarterly basis.

(5) Record and report quarterly and annual credits and debits in the Periodic Reports as specified in § 63.1335(e)(6). Every fourth Periodic Report shall include a certification of compliance with the emissions averaging provisions as required by § 63.1335(e)(6)(x)(C)(*2*).

(f) Debits and credits shall be calculated in accordance with the methods and procedures specified in paragraphs (g) and (h) of this section, respectively, and shall not include emissions during the following periods:

(1) Emissions during periods of start-up, shutdown, and malfunction, as described in the Start-up, Shutdown, and Malfunction Plan.

(2) Emissions during periods of monitoring excursions, as defined in § 63.1334(d). For these periods, the calculation of monthly credits and debits shall be adjusted as specified in paragraphs (f)(2)(i) through (f)(2)(iii) of this section.

(i) No credits would be assigned to the credit-generating emission point.

(ii) Maximum debits would be assigned to the debit-generating emission point.

(iii) The owner or operator may demonstrate to the Administrator that full or partial credits or debits should be assigned using the procedures in paragraph (l) of this section.

(g) Debits are generated by the difference between the actual emissions from a Group 1 emission point that is uncontrolled or is controlled to a level less stringent than the applicable reference control technology or standard and the emissions allowed for the Group 1 emission point. Said Group 1 emission points are identified in paragraphs (c)(3) through (c)(5) of this section. Debits shall be calculated as follows:

(1) Source-wide debits shall be calculated using Equation 28 of this subpart. Debits and all terms of Equation 28 of this subpart are in units of megagrams per month:

$$\begin{aligned} Debits = & \sum_{i=1}^{n}\left(ECPV_{iACTUAL} - (0.02)\ ECPV_{iu}\right) + \sum_{j=1}^{n}\left(ECPVS_{jACTUAL} - ECPVS_{jSTD}\right) \\ & + \sum_{i=1}^{n}\left(ES_{iACTUAL} - (b)\ ES_{iu}\right) + \sum_{i=1}^{n}\left(EWW_{iACTUAL} - EWW_{ic}\right) \\ & + \sum_{i=1}^{n}\left(EBPV_{iACTUAL} - (0.10)\ EBPV_{iu}\right) + \sum_{i=1}^{n}\left(EABV_{iACTUAL} - (0.10)\ EABV_{iu}\right) \qquad [Eq.\ 28] \end{aligned}$$

Where:

ECPViACTUAL = Emissions from each Group 1 continuous process vent i subject to § 63.1315 that is uncontrolled or is controlled to a level less stringent than the applicable reference control technology. ECPViACTUAL is calculated according to paragraph (g)(2) of this section.

(0.02)ECPViu = Emissions from each Group 1 continuous process vent i subject to § 63.1315 if the applicable reference control technology had been applied to the uncontrolled emissions. ECPViu is calculated according to paragraph (g)(2) of this section.

ECPVSjACTUAL = Emissions from Group 1 continuous process vents subject to § 63.1316(b)(1)(i), (b)(1)(ii), (b)(2)(i), (b)(2)(ii), or (c)(1) located in the collection of process sections j within the affected source that are uncontrolled or controlled to a level less stringent than the applicable standard. ECPVSjACTUAL is calculated according to paragraph (g)(3) of this section.

ECPVSjSTD = Emissions from Group 1 continuous process vents subject to § 63.1316(b)(1)(i), (b)(1)(ii), (b)(2)(i), (b)(2)(ii), or (c)(1) located in the collection of process sections j within the affected source if the applicable standard had been applied to the uncontrolled emissions. ECPVSjSTD is calculated according to paragraph (g)(3) of this section.

ESiACTUAL = Emissions from each Group 1 storage vessel i that is uncontrolled or is controlled to a level less stringent than the applicable reference control technology or standard. ESiACTUAL is calculated according to paragraph (g)(4) of this section.

(BL)ESiu = Emissions from each Group 1 storage vessel i if the applicable reference control technology or standard had been applied to the uncontrolled emissions. ESiu is calculated according to paragraph (g)(4) of this section. For calculating emissions, BL = 0.05 for each Group

1 storage vessel i subject to § 63.1314(a); and BL = 0.02 for each storage vessel i subject to § 63.1314(c).

EWWiACTUAL = Emissions from each Group 1 wastewater stream i that is uncontrolled or is controlled to a level less stringent than the applicable reference control technology. EWWiACTUAL is calculated according to paragraph (g)(5) of this section.

EWWic = Emissions from each Group 1 wastewater stream i if the reference control technology had been applied to the uncontrolled emissions. EWWic is calculated according to paragraph (g)(5) of this section.

EBPViACTUAL = Emissions from each Group 1 batch process vent i that is uncontrolled or is controlled to a level less stringent than the applicable standard. EBPVACTUAL is calculated according to paragraph (g)(6) of this section.

(0.10)EBPViu = Emissions from each Group 1 batch process vent i if the applicable standard had been applied to the uncontrolled emissions. EBPViu is calculated according to paragraph (g)(6) of this section.

EABViACTUAL = Emissions from each Group 1 aggregate batch vent stream i that is uncontrolled or is controlled to a level less stringent than the applicable standard. EABPViACTUAL is calculated according to paragraph (g)(7) of this section.

(0.10)EABViu = Emissions from each Group 1 aggregate batch vent stream i if the applicable standard had been applied to the uncontrolled emissions. EABViu is calculated according to paragraph (g)(7) of this section.

n = The number of emission points being included in the emissions average.

(2) Emissions from continuous process vents subject to § 63.1315 shall be calculated as follows:

(i) For purposes of determining continuous process vent stream flow rate, organic HAP concentrations, and temperature, the sampling site shall be after the final product recovery device, if any recovery devices are present; before any control device (for continuous process vents, recovery devices shall not be considered control devices); and before discharge to the atmosphere. Method 1 or 1A, 40 CFR part 60, appendix A, shall be used for selection of the sampling site.

(ii) ECPViu for each continuous process vent i shall be calculated using Equation 29 of this subpart.

$$ECPV_{iu} = \left(2.494 \times 10^{-9}\right) Qh \left(\sum_{j=1}^{n} C_j M_j\right) \qquad [Eq.\ 29]$$

Where:

ECPViu=Uncontrolled continuous process vent emission rate from continuous process vent i, megagrams per month.

Q=Vent stream flow rate, dry standard cubic meters per minute, measured using Method 2, 2A, 2C, or 2D, 40 CFR part 60, appendix A, as appropriate.

h=Monthly hours of operation during which positive flow is present in the continuous process vent, hours per month.

Cj=Concentration, parts per million by volume, dry basis, of organic HAP j as measured by Method 18, 40 CFR part 60, appendix A.

Mj=Molecular weight of organic HAP j, gram per gram-mole.

n=Number of organic HAP in stream.

(A) The values of Q and Cj shall be determined during a performance test conducted under representative operating conditions. The values of Q and Cj shall be established in the Notification of Compliance Status and shall be updated as provided in paragraph (g)(2)(ii)(B) of this section.

(B) If there is a change in capacity utilization other than a change in monthly operating hours, or if any other change is made to the process or product recovery equipment or operation such that the previously measured values of Q and Cj are no longer representative, a new performance test shall be conducted to determine new representative values of Q and Cj. These new values shall be used to calculate debits and credits from the time of the change forward, and the new values shall be reported in the next Periodic Report.

(iii) The following procedures and equations shall be used to calculate ECPViACTUAL:

(A) If the continuous process vent is not controlled by a control device or pollution prevention measure, ECPViACTUAL=ECPViu, where ECPViu is calculated according to the procedures in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(B) If the continuous process vent is controlled using a control device or a pollution prevention measure achieving less than 98 percent reduction, calculate ECPViACTUAL using Equation 30 of this subpart.

$$ECPV_{iACTUAL} = ECPV_{iu}\left(1 - \frac{Percent\ reduction}{100\%}\right) \qquad [Eq.\ 30]$$

(*1*) The percent reduction shall be measured according to the procedures in § 63.116 if a combustion control device is used. For a flare meeting the criteria in § 63.116(a), or a boiler or process heater meeting the criteria in § 63.116(b), the percent reduction shall be 98 percent. If a noncombustion control device is used, percent reduction shall be demonstrated by a performance test at the inlet and outlet of the device, or, if testing is not feasible, by control design evaluation and documented engineering calculations.

(*2*) For determining debits from Group 1 continuous process vents, product recovery devices shall not be considered control devices and cannot be assigned a percent reduction in calculating ECPViACTUAL. The sampling site for measurement of uncontrolled emissions is after the final product recovery device. However, as provided in § 63.113(a)(3), a Group 1 continuous process vent may add sufficient product recovery to raise the TRE index value above 1.0 or, for Group 1 continuous process vents at an existing affected source producing MBS, above 3.7, thereby becoming a Group 2 continuous process vent. Such a continuous process vent would not be a

Group 1 continuous process vent and would, therefore, not be included in determining debits under this paragraph (g)(2)(iii)(B)(*2*).

(*3*) Procedures for calculating the percent reduction of pollution prevention measures are specified in paragraph (j) of this section.

(3) Emissions from continuous process vents located in the collection of process sections within the affected source subject to § 63.1316 (b)(1)(i), (b)(1)(ii), (b)(2)(i), (b)(2)(ii), or (c)(1) shall be calculated as follows:

(i) The total organic HAP emissions from continuous process vents located in the collection of process sections j within the affected source, ECPVSjACTUAL, shall be calculated as follows. The procedures in paragraph (g)(2)(iii) of this section shall be used to determine the organic HAP emissions for each individual continuous process vent, except that paragraph (g)(2)(iii)(B)(*2*) of this section shall not apply and the sampling site shall be after those recovery devices installed as part of normal operation; before any add-on control devices (i.e., those required by regulation); and prior to discharge to the atmosphere. Then, individual continuous process vent emissions shall be summed to determine ECPVSjACTUAL.

(ii)(A) ECPVSjstd shall be calculated using Equation 31 of this subpart.

$$ECPVS_{jstd} = \left(EF_{std}\right)\left(PP_j\right) \qquad [Eq.\ 31]$$

Where:

ECPVSjstd=Emissions if the applicable standard had been applied to the uncontrolled emissions, megagrams per month.

EFstd=0.000018 Mg organic HAP/Mg of product, if the collection of process sections within the affected source is subject to § 63.1316(b)(1)(i).
=0.00002 Mg organic HAP/Mg of product, if the collection of process sections within the affected source is subject to § 63.1316 (b)(1)(ii) or (b)(2)(ii).
=0.00004 Mg organic HAP/Mg of product, if the collection of process sections within the affected source is subject to § 63.1316(b)(2)(i).
=0.0000036 Mg organic HAP/Mg of product, if the collection of process sections within the affected source is subject to § 63.1316(c)(1).

PPj=Polymer produced, Mg/month, for the collection of process sections j within the affected source, as calculated according to paragraph (g)(3)(ii)(B) of this section.

(B) The amount of polymer produced, Mg per month, for the collection of process sections j within the affected source shall be determined by determining the weight of polymer pulled from the process line(s) during a 30-day period. The polymer produced shall be determined by direct measurement or by an alternate methodology, such as materials balance. If an alternate methodology is used, a description of the methodology, including all procedures, data, and assumptions shall be submitted as part of the Emissions Averaging Plan required by § 63.1335(e)(4).

(C) Alternatively, ECPVSjstd for continuous process vents located in the collection of process sections within the affected source subject to § 63.1316(c)(1) may be calculated using the procedures in paragraph (g)(2)(i) and (g)(2)(ii) of this section to determine the organic HAP emissions for each individual continuous process vent, except that the sampling site shall be after

recovery devices installed as part of normal operation; before any add-on control devices (i.e., those required by regulation); and prior to discharge to the atmosphere. Then, individual continuous process vent emissions shall be summed and multiplied by 0.02 to determine ECPVSjstd.

(4) Emissions from storage vessels shall be calculated using the procedures specified in § 63.150(g)(3).

(5) Emissions from wastewater streams shall be calculated using the procedures in § 63.150(g)(5).

(6) Emissions from batch process vents shall be calculated as follows:

(i) EBPViu for each batch process vent i shall be calculated using the procedures specified in § 63.1323(b).

(ii) The following procedures and equations shall be used to determine EBPViACTUAL:

(A) If the batch process vent is not controlled by a control device or pollution prevention measure, EBPViACTUAL=EBPViu, where EBPViu is calculated using the procedures in § 63.1323(b).

(B) If the batch process vent is controlled using a control device or a pollution prevention measure achieving less than 90 percent reduction for the batch cycle, calculate EBPViACTUAL using Equation 32 of this subpart, where percent reduction is for the batch cycle.

$$EBPV_{iACTUAL} = EBPV_{iu}\left(1 - \frac{Percent\ reduction}{100\%}\right) \qquad [Eq.\ 32]$$

(*1*) The percent reduction for the batch cycle shall be calculated according to theprocedures in § 63.1325(c)(2).

(*2*) The percent reduction for control devices shall be calculated according to the procedures in § 63.1325 (c)(2)(i) through (c)(2)(iii).

(*3*) The percent reduction of pollution prevention measures shall be calculated using the procedures specified in paragraph (j) of this section.

(7) Emissions from aggregate batch vent streams shall be calculated as follows:

(i) For purposes of determining aggregate batch vent stream flow rate, organic HAP concentrations, and temperature, the sampling site shall be before any control device and before discharge to the atmosphere. Method 1 or 1A, 40 CFR part 60, appendix A, shall be used for selection of the sampling site.

(ii) EABViu for each aggregate batch vent stream i shall be calculated using Equation 33 of this subpart.

$$EABV_{iu} = \left(2.494 \times 10^{-9}\right) Qh \left(\sum_{j=1}^{n} C_j M_j\right) \qquad [Eq.\ 33]$$

Where:

EABViu=Uncontrolled aggregate batch vent stream emission rate from aggregate batch vent stream i, megagrams per month.

Q=Vent stream flow rate, dry standard cubic meters per minute, measured using Method 2, 2A, 2C, or 2D, 40 CFR part 60, appendix A, as appropriate.

h=Monthly hours of operation during which positive flow is present from the aggregate batch vent stream, hours per month.

Cj=Concentration, parts per million by volume, dry basis, of organic HAP j as measured by Method 18, 40 CFR part 60, appendix A.

Mj=Molecular weight of organic HAP j, gram per gram-mole.

n=Number of organic HAP in the stream.

(A) The values of Q and Cj shall be determined during a performance test conducted under representative operating conditions. The values of Q and Cj shall be established in the Notification of Compliance Status and shall be updated as provided in paragraph (g)(7)(ii)(B) of this section.

(B) If there is a change in capacity utilization other than a change in monthly operating hours, or if any other change is made to the process or product recovery equipment or operation such that the previously measured values of Q and Cj are no longer representative, a new performance test shall be conducted to determine new representative values of Q and Cj. These new values shall be used to calculate debits and credits from the time of the change forward, and the new values shall be reported in the next Periodic Report.

(iii) The following procedures and equations shall be used to calculate EABViACTUAL:

(A) If the aggregate batch vent stream is not controlled by a control device or pollution prevention measure, EABViACTUAL = EABViu, where EABViu is calculated according to the procedures in paragraphs (g)(7)(i) and (g)(7)(ii) of this section.

(B) If the aggregate batch vent stream is controlled using a control device or a pollution prevention measure achieving less than 90 percent reduction, calculate EABViACTUAL using Equation 34 of this subpart.

$$EABV_{iACTUAL} = EABV_{iu}\left(1 - \frac{Percent\ reduction}{100\%}\right) \qquad [Eq.\ 34]$$

*(1)* The percent reduction for control devices shall be determined according to the procedures in § 63.1325(e).

(*2*) The percent reduction for pollution prevention measures shall be calculated according to the procedures specified in paragraph (j) of this section.

(h) Credits are generated by the difference between emissions that are allowed for each Group 1 and Group 2 emission point and the actual emissions from that Group 1 or Group 2 emission point

that has been controlled after November 15, 1990 to a level more stringent than what is required by this subpart or any other State or Federal rule or statute. Said Group 1 and Group 2 emission points are identified in paragraphs (c)(1) through (c)(5) of this section. Credits shall be calculated using Equation 35 of this subpart.

(1) Sourcewide credits shall be calculated using Equation 35 of this subpart. Credits and all terms of Equation 35 of this subpart are in units of megagrams per month, and the baseline date is November 15, 1990:

$$
\begin{aligned}
Credits = {} & D\sum_{i=1}^{n}\left((0.02)\ \mathrm{ECPV1}_{iu} - ECPV1_{iACTUAL}\right) + D\sum_{j=1}^{n}\left(\mathrm{ECPVS1}_{jSTD} - ECPVS1_{jACTUAL}\right) \\
& + D\sum_{i=1}^{m}\left(\mathrm{ECPV2}_{iBASE} - ECPV2_{iACTUAL}\right) + D\sum_{j=1}^{m}\left(\mathrm{ECPVS2}_{jBASE} - ECPVS2_{jACTUAL}\right) \\
& + D\sum_{i=1}^{n}\left((\mathrm{BL})\ \mathrm{ES1}_{iu} - ES1_{iACTUAL}\right) + D\sum_{i=1}^{m}\left(\mathrm{ES2}_{iBASE} - ES2_{iACTUAL}\right) \\
& + D\sum_{i=1}^{n}\left(\mathrm{EWW1}_{ic} - EWW1_{iACTUAL}\right) + D\sum_{i=1}^{m}\left(\mathrm{EWW2}_{iBASE} - EWW2_{iACTUAL}\right) \\
& + D\sum_{i=1}^{n}\left((0.10)\ \mathrm{EBPV1}_{iu} - EBPV1_{iACTUAL}\right) + D\sum_{i=1}^{n}\left((0.10)\ \mathrm{EABV1}_{iu} - EABV1_{iACTUAL}\right) \\
& + D\sum_{i=1}^{m}\left(\mathrm{EBPV2}_{iBASE} - EBPV2_{iACTUAL}\right) + D\sum_{i=1}^{m}\left(\mathrm{EABV2}_{iBASE} - EABV2_{iACTUAL}\right) \qquad \text{[Eq. 35]}
\end{aligned}
$$

Where:

D = Discount factor = 0.9 for all credit generating emission points except those controlled by a pollution prevention measure; discount factor = 1.0 for each credit generating emission point controlled by a pollution prevention measure (i.e., no discount provided).

ECPV1iACTUAL = Emissions for each Group 1 continuous process vent i subject to § 63.1315 that is controlled to a level more stringent than the reference control technology. ECPV1iACTUAL is calculated according to paragraph (h)(2) of this section.

(0.02)ECPV1iu = Emissions from each Group 1 continuous process vent i subject to § 63.1315 if the applicable reference control technology had been applied to the uncontrolled emissions. ECPV1iu is calculated according to paragraph (h)(2) of this section.

ECPVS1jSTD = Emissions from Group 1 continuous process vents subject to § 63.1316(b)(1)(i), (b)(1)(ii), (b)(2)(i), (b)(2)(ii), or (c)(1) located in the collection of process sections j within the affected source if the applicable standard had been applied to the uncontrolled emissions. ECPVS1jSTD is calculated according to paragraph (h)(3) of this section.

ECPVS1jACTUAL = Emissions from Group 1 continuous process vents subject to § 63.1316(b)(1)(i), (b)(1)(ii), (b)(2)(i), (b)(2)(ii), or (c)(1) located in the collection of process sections j within the affected source that are controlled to a level more stringent than the applicable standard. ECPVS1jACTUAL is calculated according to paragraph (h)(3) of this section.

ECPV2iACTUAL = Emissions from each Group 2 continuous process vent i subject to § 63.1315 that is controlled. ECPV2iACTUAL is calculated according to paragraph (h)(2) of this section.

ECPV2iBASE = Emissions from each Group 2 continuous process vent i subject to § 63.1315 at the baseline date. ECPV2iBASE is calculated according to paragraph (h)(2) of this section.

ECPVS2jBASE = Emissions from Group 2 continuous process vents subject to § 63.1316(b)(1)(i) located in the collection of material recovery sections j within the affected source at the baseline date. ECPVS2jBASE is calculated according to paragraph (h)(3) of this section.

ECPVS2jACTUAL = Emissions from Group 2 continuous process vents subject to § 63.1316(b)(1)(i) located in the collection of material recovery sections j within the affected source that are controlled. ECPVS2jACTUAL is calculated according to paragraph (h)(3) of this section.

ES1iACTUAL = Emissions from each Group 1 storage vessel i that is controlled to a level more stringent than the applicable reference control technology or standard. ES1iACTUAL is calculated according to paragraph (h)(4) of this section.

(BL)ES1iu = Emissions from each Group 1 storage vessel i if the applicable reference control technology or standard had been applied to the uncontrolled emissions. ES1iu is calculated according to paragraph (h)(4) of this section. For calculating these emissions, BL = 0.05 for each Group 1 storage vessel i subject to § 63.1314(a); and BL = 0.02 for each storage vessel i subject to § 63.1314(c).

ES2iACTUAL = Emissions from each Group 2 storage vessel i that is controlled. ES2iACTUAL is calculated according to paragraph (h)(4) of this section.

ES2iBASE = Emissions from each Group 2 storage vessel i at the baseline date. ES2iBASE is calculated according to paragraph (h)(4) of this section.

EWW1iACTUAL = Emissions from each Group 1 wastewater stream i that is controlled to a level more stringent than the reference control technology. EWW1iACTUAL is calculated according to paragraph (h)(5) of this section.

EWW1ic = Emissions from each Group 1 wastewater stream i if the reference control technology had been applied to the uncontrolled emissions. EWW1ic is calculated according to paragraph (h)(5) of this section.

EWW2iACTUAL = Emissions from each Group 2 wastewater stream i that is controlled. EWW2iACTUAL is calculated according to paragraph (h)(5) of this section.

EWW2iBASE = Emissions from each Group 2 wastewater stream i at the baseline date. EWW2iBASE is calculated according to paragraph (h)(5) of this section.

(0.10)EBPV1iu = Emissions from each Group 1 batch process vent i if the applicable standard had been applied to the uncontrolled emissions. EBPV1iu is calculated according to paragraph (h)(6) of this section.

EBPV1iACTUAL = Emissions from each Group 1 batch process vent i that is controlled to a level more stringent than the applicable standard. EBPV1iACTUAL is calculated according to paragraph (h)(6) of this section.

(0.10)EABV1iu = Emissions from each Group 1 aggregate batch vent stream i if the applicable standard had been applied to the uncontrolled emissions. EABV1iu is calculated according to paragraph (h)(7) of this section.

EABV1iACTUAL = Emissions from each Group 1 aggregate batch vent stream i that is controlled to a level more stringent than the applicable standard. EABV1iACTUAL is calculated according to paragraph (h)(7) of this section.

EBPV2iBASE = Emissions from each Group 2 batch process vent i at the baseline date. EBPV2iBASE is calculated according to paragraph (h)(6) of this section.

EBPV2iACTUAL = Emissions from each Group 2 batch process vent i that is controlled. EBPV2iACTUAL is calculated according to paragraph (h)(6) of this section.

EABV2iBASE = Emissions from each Group 2 aggregate batch vent stream i at the baseline date. EABV2iBASE is calculated according to paragraph (h)(7) of this section.

EABV2iACTUAL = Emissions from each Group 2 aggregate batch vent stream i that is controlled. EABV2iACTUAL is calculated according to paragraph (h)(7) of this section.

n = Number of Group 1 emission points included in the emissions average. The value of n is not necessarily the same for continuous process vents, batch process vents, aggregate batch vent streams, storage vessels, wastewater streams, or the collection of process sections within the affected source.

m = Number of Group 2 emission points included in the emissions average. The value of m is not necessarily the same for continuous process vents, batch process vents, aggregate batch vent streams, storage vessels, wastewater streams, or the collection of process sections within the affected source.

(i) Except as specified in paragraph (h)(1)(iv) of this section, for an emission point controlled using a reference control technology, the percent reduction for calculating credits shall be no greater than the nominal efficiency associated with the reference control technology, unless a higher nominal efficiency is assigned as specified in paragraph (h)(1)(ii) of this section.

(ii) For an emission point controlled to a level more stringent than the reference control technology, the nominal efficiency for calculating credits shall be assigned as described in paragraph (i) of this section. A reference control technology may be approved for use in a different manner and assigned a higher nominal efficiency according to the procedures in paragraph (i) of this section.

(iii) For an emission point controlled using a pollution prevention measure, the nominal efficiency for calculating credits shall be as determined as described in paragraph (j) of this section.

(iv) For Group 1 and Group 2 batch process vents and Group 1 and Group 2 aggregate batch vent streams, the percent reduction for calculating credits shall be the percent reduction determined according to the procedures in paragraphs (h)(6)(ii) and (h)(6)(iii) of this section for batch process vents and paragraphs (h)(7)(ii) and (h)(7)(iii) of this section for aggregate batch vent streams.

(2) Emissions from continuous process vents subject to § 63.1315 shall be determined as follows:

(i) Uncontrolled emissions from Group 1 continuous process vents (ECPV1iu) shall be calculated according to the procedures and equation for ECPViu in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(ii) Actual emissions from Group 1 continuous process vents controlled using a technology with an approved nominal efficiency greater than 98 percent or a pollution prevention measure achieving greater than 98 percent emission reduction (ECPV1iACTUAL) shall be calculated using Equation 36 of this subpart.

$$ECPV1_{iACTUAL} = ECPV1_{iu}\left(1 - \frac{Nominal\ efficiency\ \%}{100\%}\right) \qquad [Eq.\ 36]$$

(iii) The following procedures shall be used to calculate actual emissions from Group 2 continuous process vents (ECPV2iACTUAL):

(A) For a Group 2 continuous process vent controlled by a control device, a recovery device applied as a pollution prevention project, or a pollution prevention measure, where the control achieves a percent reduction less than or equal to 98 percent reduction, use Equation 37 of this subpart.

$$ECPV2_{iACTUAL} = ECPV2_{iu}\left(1 - \frac{Percent\ reduction}{100\%}\right) \qquad [Eq.\ 37]$$

(*1*) ECPV2iu shall be calculated according to the equations and procedures for ECPViu in paragraphs (g)(2)(i) and (g)(2)(ii) of this section, except as provided in paragraph (h)(2)(iii)(A)(*3*) of this section.

(*2*) The percent reduction shall be calculated according to the procedures in paragraphs (g)(2)(iii)(B)(*1*) through (g)(2)(iii)(B)(*3*) of this section, except as provided in paragraph (h)(2)(iii)(A)(*4*) of this section.

(*3*) If a recovery device was added as part of a pollution prevention project, ECPV2iu shall be calculated prior to that recovery device. The equation for ECPViu in paragraph (g)(2)(ii) of this section shall be used to calculate ECPV2iu; however, the sampling site for measurement of vent stream flow rate and organic HAP concentration shall be at the inlet of the recovery device.

(*4*) If a recovery device was added as part of a pollution prevention project, the percent reduction shall be demonstrated by conducting a performance test at the inlet and outlet of that recovery device.

(B) For a Group 2 continuous process vent controlled using a technology with an approved nominal efficiency greater than 98 percent or a pollution prevention measure achieving greater than 98 percent reduction, use Equation 38 of this subpart.

$$ECPV2_{iACTUAL} = ECPV2_{iu}\left(1 - \frac{Nominal\ efficiency\ \%}{100\%}\right) \qquad [Eq.\ 38]$$

(iv) Emissions from Group 2 continuous process vents at baseline shall be calculated as follows:

(A) If the continuous process vent was uncontrolled on November 15, 1990, ECPV2iBASE=ECPV2iu and shall be calculated according to the procedures and equation for ECPViu in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(B) If the continuous process vent was controlled on November 15, 1990, use Equation 39 of this subpart.

$$ECPV2_{iBASE} = ECPV2_{iu}\left(1 - \frac{Percent\ reduction}{100\%}\right) \qquad [Eq.\ 39]$$

(*1*) ECPV2iu is calculated according to the procedures and equation for ECPViu in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(*2*) The percent reduction shall be calculated according to the procedures specified in paragraphs (g)(2)(iii)(B)(*1*) through (g)(2)(iii)(B)(*3*) of this section.

(C) If a recovery device was added as part of a pollution prevention project initiated after November 15, 1990, ECPV2iBASE=ECPV2iu, where ECPV2iu is calculated according to paragraph (h)(2)(iii)(A)(*3*) of this section.

(3) Emissions from continuous process vents subject to § 63.1316(b)(1)(i), (b)(1)(ii), (b)(2)(i), (b)(2)(ii), or (c)(1) shall be determined as follows:

(i) Emissions from Group 1 continuous process vents located in the collection of process sections j within the affected source if the applicable standard had been applied to the uncontrolled emissions (ECPVS1jstd) shall be calculated according to paragraph (g)(3)(ii) of this section.

(ii) Actual emissions from Group 1 continuous process vents located in the collection of process sections j within the affected source controlled to a level more stringent than the applicable standard (ECPVS1jACTUAL) shall be calculated using the procedures in paragraphs (g)(3)(ii)(A) and (g)(3)(ii)(B) of this section, except that the actual emission level, Mg organic HAP/Mg of product, shall be used as EFstd in Equation 31 of this subpart. Further, ECPVS1jACTUAL for continuous process vents subject to § 63.1316(c)(1) controlled in accordance with § 63.1316(c)(1)(iii) shall be calculated using the procedures in paragraph (h)(2)(ii) of this section for individual continuous process vents and then summing said emissions to get ECPVS1jACTUAL, except that the sampling site shall be after recovery devices installed as part of normal operation; before any add-on control devices (i.e., those required by regulation); and prior to discharge to the atmosphere.

(iii) Actual emissions from Group 2 continuous process vents subject to § 63.1316(b)(1)(i) located in the collection of material recovery sections j within the affected source (ECPVS2jACTUAL) shall be calculated using the procedures in paragraphs (g)(3)(ii)(A) and (g)(3)(ii)(B) of this section, except that the actual emission level, Mg organic HAP/Mg of product, shall be used as EFstd in Equation 31 of this subpart.

(iv) Emissions from Group 2 continuous process vents subject to § 63.1316(b)(1)(i) located in the collection of material recovery sections j within the affected source at baseline (ECPVS2jBASE) shall be calculated using the procedures in paragraphs (g)(3)(ii)(A) and (g)(3)(ii)(B) of this section, except that the actual emission level, Mg organic HAP/Mg of product, at baseline shall be used as EFstd in Equation 31 of this subpart.

(4)(i) Emissions from storage vessels shall be calculated using the procedures specified in § 63.150(h)(3).

(ii) Actual emissions from Group 1 storage vessels at an existing affected source producing ASA/AMSAN subject to § 63.1314(c) using a technology with an approved nominal efficiency greater than 98 percent or a pollution prevention measure achieving greater than 98 percent emission reduction shall be calculated using the procedures specified in § 63.150(h)(3)(ii).

(5) Emissions from wastewater streams shall be calculated using the procedures specified in § 63.150(h)(5).

(6) Emissions from batch process vents shall be determined as follows:

(i) Uncontrolled emissions from Group 1 batch process vents (EBPV1iu) shall be calculated using the procedures § 63.1323(b).

(ii) Actual emissions from Group 1 batch process vents controlled to a level more stringent than the standard (EBPV1iACTUAL) shall be calculated using Equation 40 of this subpart, where percent reduction is for the batch cycle:

$$EBPV1_{iACTUAL} = EBPV1_{iu}\left(1 - \frac{Percent\ reduction}{100\%}\right) \qquad [Eq.S\ 40]$$

(A) The percent reduction for the batch cycle shall be calculated according to the procedures in § 63.1325(c)(2).

(B) The percent reduction for control devices shall be determined according to the procedures in § 63.1325(c)(2)(i) through (c)(2)(iii).

(C) The percent reduction of pollution prevention measures shall be calculated using the procedures specified in paragraph (j) of this section.

(iii) Actual emissions from Group 2 batch process vents (EBPV2iACTUAL) shall be calculated using Equation 41 of this subpart and the procedures in paragraphs (h)(6)(ii)(A) through (h)(6)(ii)(C) of this section. EBPV2iu shall be calculated using the procedures specified in § 63.1323(b).

$$EBPV2_{iACTUAL} = EBPV2_{iu}\left(1 - \frac{Percent\ reduction}{100\%}\right) \qquad [Eq.41]$$

(iv) Emissions from Group 2 batch process vents at baseline (EBPV2iBASE) shall be calculated as follows:

(A) If the batch process vent was uncontrolled on November 15, 1990, EBPV2iBASE=EBPV2iu and shall be calculated using the procedures specified in § 63.1323(b).

(B) If the batch process vent was controlled on November 15, 1990, use Equation 42 of this subpart and the procedures in paragraphs (h)(6)(ii)(A) through (h)(6)(ii)(C) of this section. EBPV2iu shall be calculated using the procedures specified in § 63.1323(b).

$$EBPV2_{iBASE} = EBPV2_{iu}\left(1 - \frac{Percent\ reduction}{100\%}\right) \qquad [Eq.42]$$

(7) Emissions from aggregate batch vent streams shall be determined as follows:

(i) Uncontrolled emissions from Group 1 aggregate batch vent streams (EABV1iu) shall be calculated according to the procedures and equation for EABViu in paragraphs (g)(7)(i) and (g)(7)(ii) of this section.

(ii) Actual emissions from Group 1 aggregate batch vent streams controlled to a level more stringent than the standard (EABV1iACTUAL) shall be calculated using Equation 43 of this subpart:

$$EABV1_{iACTUAL} = EABV1_{iu}\left(1 - \frac{Percent\ reduction}{100\%}\right) \qquad [Eq.\ 43]$$

(A) The percent reduction for control devices shall be determined according to the procedures in § 63.1325(e).

(B) The percent reduction of pollution prevention measures shall be calculated using the procedures specified in paragraph (j) of this section.

(iii) Actual emissions from Group 2 aggregate batch vent streams (EABV2iACTUAL) shall be calculated using Equation 44 of this subpart and the procedures in paragraphs (h)(7)(ii)(A) through (h)(7)(ii)(B) of this section. EABV2iu shall be calculated according to the equations and procedures for EABViu in paragraphs (g)(7)(i) and (g)(7)(ii) of this section.

$$EABV2_{iACTUAL} = EABV2_{iu}\left(1 - \frac{Percent\ reduction}{100\%}\right) \qquad [Eq.\ 44]$$

(iv) Emissions from Group 2 aggregate batch vent streams at baseline shall be calculated as follows:

(A) If the aggregate batch vent stream was uncontrolled on November 15, 1990, EABV2iBASE=EABV2iu and shall be calculated according to the procedures and equation for EABViu in paragraphs (g)(7)(i) and (g)(7)(ii) of this section.

(B) If the aggregate batch vent stream was controlled on November 15, 1990, use Equation 45 of this subpart and the procedures in paragraphs (h)(7)(ii)(A) through (h)(7)(ii)(B) of this section. EABV2iu shall be calculated according to the equations and procedures for EABViu in paragraphs (g)(7)(i) and (g)(7)(ii) of this section.

$$EABV2_{iBASE} = EABV2_{iu}\left(1 - \frac{Percent\ reduction}{100\%}\right) \qquad [Eq.\ 45]$$

(i) The following procedures shall be followed to establish nominal efficiencies for emission controls for storage vessels, continuous process vents, and process streams. The procedures in paragraphs (i)(1) through (i)(6) of this section shall be followed for control technologies that are different in use or design from the reference control technologies and achieve greater percent reductions than the percent efficiencies assigned to the reference control technologies in § 63.111.

(1) In those cases where the owner or operator is seeking permission to take credit for use of a control technology that is different in use or design from the reference control technology, and the

different control technology will be used in more than three applications at a single plant-site, the owner or operator shall submit the information specified in paragraphs (i)(1)(i) through (i)(1)(iv) of this section, as specified in § 63.1335(e)(7)(ii), to the Director of the EPA Office of Air Quality Planning and Standards in writing:

(i) Emission stream characteristics of each emission point to which the control technology is or will be applied including the kind of emission point, flow, organic HAP concentration, and all other stream characteristics necessary to design the control technology or determine its performance.

(ii) Description of the control technology including design specifications.

(iii) Documentation demonstrating to the Administrator's satisfaction the control efficiency of the control technology. This may include performance test data collected using an appropriate EPA Method or any other method validated according to Method 301, 40 CFR part 63, appendix A, of this part. If it is infeasible to obtain test data, documentation may include a design evaluation and calculations. The engineering basis of the calculation procedures and all inputs and assumptions made in the calculations shall be documented.

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

(2) The Administrator shall determine within 120 days whether an application presents sufficient information to determine nominal efficiency. The Administrator reserves the right to request specific data in addition to the items listed in paragraph (i)(1) of this section.

(3) The Administrator shall determine within 120 days of the submittal of sufficient data whether a control technology shall have a nominal efficiency and the level of that nominal efficiency. If, in the Administrator's judgment, the control technology achieves a level of emission reduction greater than the reference control technology for a particular kind of emission point, the Administrator will publish a Federal Register notice establishing a nominal efficiency for the control technology.

(4) The Administrator may grant permission to take emission credits for use of the control technology. The Administrator may also impose requirements that may be necessary to ensure operation and maintenance to achieve the specified nominal efficiency.

(5) In those cases where the owner or operator is seeking permission to take credit for use of a control technology that is different in use or design from the reference control technology and the different control technology will be used in no more than three applications at a single plant site, the owner or operator shall submit the information listed in paragraphs (i)(1)(i) through (i)(1)(iv) of this section, as specified in § 63.1335(e)(7)(ii), to the Administrator.

(i) In these instances, use and conditions for use of the control technology may be approved by the permitting authority as part of an operating permit application or modification. The permitting authority shall follow the procedures specified in paragraphs (i)(2) through (i)(4) of this section except that, in these instances, a Federal Register notice is not required to establish the nominal efficiency for the different technology.

(ii) If, in reviewing the application, the permitting authority believes the control technology has broad applicability for use by other affected sources, the permitting authority shall submit the information provided in the application to the Director of the EPA Office of Air Quality Planning and Standards. The Administrator shall review the technology for broad applicability and may

publish a Federal Register notice; however, this review shall not affect the permitting authority's approval of the nominal efficiency of the control technology for the specific application.

(6) If, in reviewing an application for a control technology for an emission point, the Administrator or permitting authority determines the control technology is not different in use or design from the reference control technology, the Administrator or permitting authority shall deny the application.

(j) The following procedures shall be used for calculating the efficiency (percent reduction) of pollution prevention measures for storage vessels, continuous process vents, batch process vents, aggregate batch vent streams, and wastewater streams:

(1) A pollution prevention measure is any practice that meets the criteria of paragraphs (j)(1)(i) and (j)(1)(ii) of this section.

(i) A pollution prevention measure is any practice that results in a lesser quantity of organic HAP emissions per unit of product released to the atmosphere prior to out-of-process recycling, treatment, or control of emissions, while the same product is produced.

(ii) Pollution prevention measures may include: substitution of feedstocks that reduce organic HAP emissions; alterations to the production process to reduce the volume of materials released to the environment; equipment modifications; housekeeping measures; and in-process recycling that returns waste materials directly to production as raw materials. Production cutbacks do not qualify as pollution prevention.

(2) The emission reduction efficiency of pollution prevention measures implemented after November 15, 1990, may be used in calculating the actual emissions from an emission point in the debit and credit equations in paragraphs (g) and (h) of this section.

(i) For pollution prevention measures, the percent reduction used in the equations in paragraphs (g)(2) through (g)(7) of this section and paragraphs (h)(2) through (h)(7) of this section is the percent difference between the monthly organic HAP emissions for each emission point after the pollution prevention measure for the most recent month versus monthly emissions from the same emission point before the pollution prevention measure, adjusted by the volume of product produced during the two monthly periods.

(ii) Equation 46 of this subpart shall be used to calculate the percent reduction of a pollution prevention measure for each emission point.

$$Percent\ reduction = \frac{E_B - \frac{(E_{pp})(P_B)}{P_{pp}}}{E_B} 100\% \qquad [Eq.\ 46]$$

Where:

Percent reduction=Efficiency of pollution prevention measure (percent organic HAP reduction).

EB=Monthly emissions before the pollution prevention measure, megagrams per month, determined as specified in paragraphs (j)(2)(ii)(A), (j)(2)(ii)(B), and (j)(2)(ii)(C) of this section.

Epp=Monthly emissions after the pollution prevention measure, megagrams per month, as determined for the most recent month, determined as specified in either paragraphs (j)(2)(ii)(D) or (j)(2)(ii)(E) of this section.

PB=Monthly production before the pollution prevention measure, megagrams per month, during the same period over which EB is calculated.

Ppp=Monthly production after the pollution prevention measure, megagrams per month, as determined for the most recent month.

(A) The monthly emissions before the pollution prevention measure, EB, shall be determined in a manner consistent with the equations and procedures in paragraphs (g)(2) and (g)(3) of this section for continuous process vents, paragraph (g)(4) of this section for storage vessels, paragraph (g)(6) of this section for batch process vents, and paragraph (g)(7) of this section for aggregate batch vent streams.

(B) For wastewater, EB shall be calculated using Equation 47 of this subpart:

$$E_B = \sum_{i=1}^{n}\left[\left(6.0*10^{-8}\right) Q_{Bi} H_{Bi} \sum_{m=1}^{S} Fe_m HAP_{Bim}\right] \qquad \text{[Eq. 47]}$$

Where:

n = Number of wastewater streams.

QBi = Annual average flow rate for wastewater stream i before the pollution prevention measure, defined and determined according to § 63.144(c)(3), liters per minute, before implementation of the pollution prevention measure.

HBi = Number of hours per month that wastewater stream i was discharged before the pollution prevention measure, hours per month.

s = Total number of organic HAP in wastewater stream i.

Fem = Fraction emitted of organic HAP m in wastewater from Table 34 of subpart G of this part, dimensionless.

HAPBim = Annual average concentration of organic HAP m in wastewater stream i, defined and determined according to paragraph § 63.150(g)(5)(i) of this section, before the pollution prevention measure, parts per million by weight, as measured before the implementation of the pollution measure.

(C) If the pollution prevention measure was implemented prior to September 12, 1996 records may be used to determine EB.

(D) The monthly emissions after the pollution prevention measure, Epp, may be determined during a performance test or by a design evaluation and documented engineering calculations. Once an emissions-to-production ratio has been established, the ratio can be used to estimate monthly emissions from monthly production records.

(E) For wastewater, Epp shall be calculated using Equation 48 of this subpart and n, Qppi, Hppi, s, Fem, and HAPppim are defined and determined as described in paragraph (j)(2)(ii)(B) of this section, except that Qppi, Hppi, and HAPppim shall be determined after the pollution prevention measure has been implemented.

$$E_{pp} = \sum_{i=1}^{n}\left[\left(6.0*10^{-8}\right)Q_{ppi}\ H_{ppi}\sum_{m=1}^{s}Fe_{m}\ HAP_{ppim}\right] \qquad [Eq.\ 48]$$

(iii) All equations, calculations, test procedures, test results, and other information used to determine the percent reduction achieved by a pollution prevention measure for each emission point shall be fully documented.

(iv) The same pollution prevention measure may reduce emissions from multiple emission points. In such cases, the percent reduction in emissions for each emission point shall be calculated.

(v) For the purposes of the equations in paragraphs (h)(2) through (h)(7) of this section used to calculate credits for emission points controlled more stringently than the reference control technology or standard, the nominal efficiency of a pollution prevention measure is equivalent to the percent reduction of the pollution prevention measure. When a pollution prevention measure is used, the owner or operator of an affected source is not required to apply to the Administrator for a nominal efficiency and is not subject to paragraph (i) of this section.

(k) The owner or operator shall demonstrate that the emissions from the emission points proposed to be included in the emissions average will not result in greater hazard or, at the option of the Administrator, greater risk to human health or the environment than if the emission points were controlled according to the provisions in §§ 63.1314, 63.1315, 63.1316 through 63.1320, 63.1321, and 63.1330.

(1) This demonstration of hazard or risk equivalency shall be made to the satisfaction of the Administrator.

(i) The Administrator may require owners and operators to use specific methodologies and procedures for making a hazard or risk determination.

(ii) The demonstration and approval of hazard or risk equivalency shall be made according to any guidance that the Administrator makes available for use.

(2) Owners and operators shall provide documentation demonstrating the hazard or risk equivalency of their proposed emissions average in their operating permit application or in their Emissions Averaging Plan if an operating permit application has not yet been submitted.

(3) An Emissions Averaging Plan that does not demonstrate hazard or risk equivalency to the satisfaction of the Administrator shall not be approved. The Administrator may require such adjustments to the Emissions Averaging Plan as are necessary in order to ensure that the emissions average will not result in greater hazard or risk to human health or the environment than would result if the emission points were controlled according to §§ 63.1314, 63.1315, 63.1316 through 63.1320, 63.1321, and 63.1330.

(4) A hazard or risk equivalency demonstration shall:

(i) Be a quantitative, bona fide chemical hazard or risk assessment;

(ii) Account for differences in chemical hazard or risk to human health or the environment; and

(iii) Meet any requirements set by the Administrator for such demonstrations.

(l) For periods of parameter monitoring excursions, an owner or operator may request that the provisions of paragraphs (l)(1) through (l)(4) of this section be followed instead of the procedures in paragraphs (f)(2)(i) and (f)(2)(ii) of this section.

(1) The owner or operator shall notify the Administrator of monitoring excursions in the Periodic Reports as required in § 63.1335(e)(6).

(2) The owner or operator shall demonstrate that other types of monitoring data or engineering calculations are appropriate to establish that the control device for the emission point was operating in such a fashion to warrant assigning full or partial credits and debits. This demonstration shall be made to the Administrator's satisfaction, and the Administrator may establish procedures of demonstrating compliance that are acceptable.

(3) The owner or operator shall provide documentation of the excursion and the other type of monitoring data or engineering calculations to be used to demonstrate that the control device for the emission point was operating in such a fashion to warrant assigning full or partial credits and debits.

(4) The Administrator may assign full or partial credit and debits upon review of the information provided.

(m) For each emission point included in an emissions average, the owner or operator shall perform testing, monitoring, recordkeeping, and reporting equivalent to that required for Group 1 emission points complying with §§ 63.1314, 63.1315, 63.1316 through 63.1320, 63.1321, and 63.1330, as applicable. The specific requirements for continuous process vents, batch process vents, aggregate batch vent streams, storage vessels, and wastewater operations that are included in an emissions average for an affected source are identified in paragraphs (m)(1) through (m)(7) of this section.

(1) For each continuous process vent subject to § 63.1315 equipped with a flare, incinerator, boiler, or process heater, as appropriate to the control technique:

(i) Determine whether the continuous process vent is Group 1 or Group 2 according to the procedures specified in § 63.1315;

(ii) Conduct initial performance tests to determine percent reduction according to the procedures specified in § 63.1315; and

(iii) Monitor the operating parameters, keep records, and submit reports according to the procedures specified in § 63.1315.

(2) For each continuous process vent subject to § 63.1315 equipped with a carbon adsorber, absorber, or condenser but not equipped with a control device, as appropriate to the control technique:

(i) Determine the flow rate, organic HAP concentration, and TRE index value according to the procedures specified in § 63.1315; and

(ii) Monitor the operating parameters, keep records, and submit reports according to the procedures specified in § 63.1315.

(3) For continuous process vents subject to § 63.1316(b)(1)(i), (b)(1)(ii), (b)(2)(i), (b)(2)(ii), or (c)(1):

(i) Determine whether the emissions from the continuous process vents subject to § 63.1316(b)(1)(i) located in the collection of material recovery sections within the affected source are greater than, equal to, or less than 0.12 kg organic HAP per Mg of product according to the procedures specified in § 63.1318(b);

(ii) Determine the emission rate, ERHAP, for each collection of process sections within the affected source according to the procedures specified in § 63.1318(b); and

(iii) [Reserved]

(iv) Monitor the operating parameters, keep records, and submit reports according to the procedures specified in § 63.1317, § 63.1319, § 63.1320.

(4) For each storage vessel controlled with an internal floating roof, external roof, or a closed vent system with a control device, as appropriate to the control technique:

(i) Perform the monitoring or inspection procedures according to the procedures specified in § 63.1314;

(ii) Perform the reporting and recordkeeping procedures according to the procedures specified in § 63.1314; and

(iii) For closed vent systems with control devices, conduct an initial design evaluation and submit an operating plan according to the procedures specified in § 63.1314.

(5) For wastewater emission points, as appropriate to the control technique:

(i) For wastewater treatment processes, conduct tests according to the procedures specified in § 63.1330;

(ii) Conduct inspections and monitoring according to the procedures specified in § 63.1330;

(iii) Implement a recordkeeping program according to the procedures specified in § 63.1330; and

(iv) Implement a reporting program according to the procedures specified in § 63.1330.

(6) For each batch process vent and aggregate batch vent stream equipped with a control device, as appropriate to the control technique:

(i) Determine whether the batch process vent or aggregate batch vent stream is Group 1 or Group 2 according to the procedures in § 63.1323;

(ii) Conduct performance tests according to the procedures specified in § 63.1325;

(iii) Conduct monitoring according to the procedures specified in § 63.1324; and

(iv) Perform the recordkeeping and reporting procedures according to the procedures specified in §§ 63.1326 and 63.1327.

(7) If an emission point in an emissions average is controlled using a pollution prevention measure or a device or technique for which no monitoring parameters or inspection procedures are required by §§ 63.1314, 63.1315, 63.1316 through 63.1320, 63.1321, or 63.1330, the owner or operator shall submit the information specified in § 63.1335(f) for alternate monitoring parameters or inspection procedures in the Emissions Averaging Plan or operating permit application.

(n) Records of all information required to calculate emission debits and credits shall be retained for 5 years.

(o) Precompliance Reports, Emission Averaging Plans, Notifications of Compliance Status, Periodic Reports, and other reports shall be submitted as required by § 63.1335.

**[40 CFR 63.1333 ]**

**Additional requirements for performance testing.**

(a) Performance testing shall be conducted in accordance with § 63.7(a)(1), (a)(3), (d), (e)(1), (e)(2), (e)(4), (g), and (h), with the exceptions specified in paragraphs (a)(1) through (a)(5) of this section and the additions specified in paragraphs (b) through (d) of this section. Sections 63.1314 through 63.1330 also contain specific testing requirements.

(1) Performance tests shall be conducted according to the provisions of § 63.7(e)(1) and (e)(2), except that performance tests shall be conducted at maximum representative operating conditions achievable during one of the time periods described in paragraph (a)(1)(i) of this section, without causing any of the situations described in paragraph (a)(1)(ii) of this section to occur.

(i) The 6-month period that ends 2 months before the Notification of Compliance Status is due, according to § 63.1335(e)(5); or the 6-month period that begins 3 months before the performance test and ends 3 months after the performance test.

(ii) Causing damage to equipment; necessitating that the owner or operator make product that does not meet an existing specification for sale to a customer; or necessitating that the owner or operator make product in excess of demand.

(2) The requirements in § 63.1335(e)(5) shall apply instead of the references in § 63.7(g) to the Notification of Compliance Status requirements in § 63.9(h).

(3) Because the site-specific test plans in § 63.7(c)(3) are not required, § 63.7(h)(4)(ii) is not applicable.

(4) 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 to allow the Administrator the opportunity to have an observer present during the test. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator by mutual agreement.

(5) Performance tests shall be performed no later than 150 days after the compliance dates specified in this subpart (*i.e.*, in time for the results to be included in the Notification of Compliance Status), rather than according to the time periods in § 63.7(a)(2) of subpart A of this part.

(b) Each owner or operator of an existing affected source producing MBS complying with § 63.1315(b)(2) shall determine compliance with the mass emission per mass product standard by using Equation 49 of this subpart. When determining Ei, when the provisions of § 63.116(c)(4) specify that Method 18, 40 CFR part 60, appendix A, shall be used, Method 18 or Method 25A, 40 CFR part 60, appendix A, may be used for the purposes of this subpart. The use of Method 25A, 40 CFR part 60, appendix A, shall conform with the requirements in paragraphs (b)(1) and (b)(2) of this section.

$$ER_{MBS} = \frac{\sum_{i=1}^{n} E_i}{PP_M} \qquad \text{[Eq. 49]}$$

Where:

ERMBS = Emission rate of organic HAP or TOC from continuous process vents, kg/Mg product.

Ei = Emission rate of organic HAP or TOC from continuous process vent i as calculated using the procedures specified in § 63.116(c)(4), kg/month.

PPM = Amount of polymer produced in one month as determined by the procedures specified in § 63.1318(b)(1)(ii), Mg/month.

n = Number of continuous process vents.

(1) The organic HAP used as the calibration gas for Method 25A, 40 CFR part 60, appendix A, shall be the single organic HAP representing the largest percent by volume.

(2) The use of Method 25A, 40 CFR part 60, appendix A, is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(c) The owner or operator of an affected source, complying with § 63.1322(a)(3) shall determine compliance with the percent reduction requirement using Equation 50 of this subpart.

$$PR = \frac{\left[H_j \sum_{j=1}^{n} \left(E_i - E_o\right) j\right] + \sum_{k=1}^{n} H_k E_{ku} + \sum_{l=1}^{n} AE_{unc}}{\left(H_j \sum_{j=1}^{n} E_i\right) + \sum_{k=1}^{n} H_k E_{ku} + \sum_{l=1}^{n} AE_{unc}} (100) \qquad [Eq.\ 50]$$

Where:

PR=Percent reduction

Hj=Number of operating hours in a year for control device j.

Ei=Mass rate of TOC or total organic HAP at the inlet of control device j, calculated as specified in § 63.1325(f), kg/hr. This value includes all continuous process vents, batch process vents, and aggregate batch vent streams routed to control device j.

Eo=Mass rate of TOC or total organic HAP at the outlet of control device j, calculated as specified in § 63.1325(f), kg/hr.

Hk=Number of hours of operation during which positive flow is present in uncontrolled continuous process vent or aggregate batch vent stream k, hr/yr.

Eku=Mass rate of TOC or total organic HAP of uncontrolled continuous process vent or aggregate batch vent stream k, calculated as specified in § 63.1325(f)(4), kg/hr.

AEunc=Mass rate of TOC or total organic HAP of uncontrolled batch process vent l, calculated as specified in § 63.1325(f)(4), kg/yr.

n=Number of control devices, uncontrolled continuous process vents and aggregate batch vent streams, and uncontrolled batch process vents. The value of n is not necessarily the same for these three items.

(d) Data shall be reduced in accordance with the EPA approved methods specified in the applicable subpart 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) Notwithstanding any other provision of this subpart, if an owner or operator of an affected source uses a flare to comply with any of the requirements of this subpart, the owner or operator shall comply with paragraphs (e)(1) through (e)(3) of this section. The owner or operator is not required to conduct a performance test to determine percent emission reduction or outlet organic HAP or TOC concentration. If a compliance demonstration has been conducted previously for a flare, using the techniques specified in paragraphs (e)(1) through (e)(3) of this section, that compliance demonstration may be used to satisfy the requirements of this paragraph if either no deliberate process changes have been made since the compliance demonstration, or the results of the compliance demonstration reliably demonstrate compliance despite process changes.

(1) Conduct a visible emission test using the techniques specified in § 63.11(b)(4);

(2) Determine the net heating value of the gas being combusted, using the techniques specified in § 63.11(b)(6); and

(3) Determine the exit velocity using the techniques specified in either § 63.11(b)(7)(i) (and § 63.11(b)(7)(iii), where applicable) or § 63.11(b)(8), as appropriate.

**[40 CFR 63.1334]**

**Parameter monitoring levels and excursions.**

(a) *Establishment of parameter monitoring levels.* The owner or operator of a control or recovery device that has one or more parameter monitoring level requirements specified under this subpart shall establish a maximum or minimum level for each measured parameter. If a performance test is required by this subpart for a control device, the owner or operator shall use the procedures in either paragraph (b) or (c) of this section to establish the parameter monitoring level(s). If a performance test is not required by this subpart for a control device, the owner or operator may use the procedures in paragraph (b), (c) or (d) of this section to establish the parameter monitoring level(s). When using the procedures specified in paragraph (c) or (d) of this section, the owner or operator shall submit the information specified in § 63.1335(e)(3)(vii) for review and approval as part of the Precompliance Report.

(1) The owner or operator shall operate control and recovery devices such that the daily average of monitored parameters remains above the minimum established level or below the maximum established level, except as otherwise stated in this subpart.

(2) As specified in § 63.1335(e)(5), all established levels, along with their supporting documentation and the definition of an operating day, shall be submitted as part of the Notification of Compliance Status.

(3) Nothing in this section shall be construed to allow a monitoring parameter excursion caused by an activity that violates other applicable provisions of subpart A, F, G, or H of this part.

(b) *Establishment of parameter monitoring levels based exclusively on performance tests.* In cases where a performance test is required by this subpart, or the owner or operator of the affected source elects to do a performance test in accordance with the provisions of this subpart, and an owner or operator elects to establish a parameter monitoring level for a control, recovery, or recapture device based exclusively on parameter values measured during the performance test, the owner or operator of the affected source shall comply with the procedures in paragraphs (b)(1) through (b)(4) of this section, as applicable.

(1) [Reserved]

(2) *Continuous process vents.* During initial compliance testing, the appropriate parameter shall be continuously monitored during the required 1-hour runs. The monitoring level(s) shall then be established as the average of the maximum (or minimum) point values from the three test runs. The average of the maximum values shall be used when establishing a maximum level, and the average of the minimum values shall be used when establishing a minimum level.

(3) *Batch process vents.* The monitoring level(s) shall be established using the procedures specified in either paragraph (b)(3)(i) or (b)(3)(ii) of this section. The procedures specified in this paragraph (b)(3) may only be used if the batch emission episodes, or portions thereof, selected to be controlled were tested, and monitoring data were collected, during the entire period in which emissions were vented to the control device, as specified in § 63.1325(c)(1)(i). If the owner or operator chose to test only a portion of the batch emission episode, or portion thereof, selected to be controlled, the procedures in paragraph (c) of this section shall be used.

(i) If more than one batch emission episode or more than one portion of a batch emission episode has been selected to be controlled, a single level for the batch cycle shall be calculated as follows:

(A) The average monitored parameter value shall be calculated for each batch emission episode, or portion thereof, in the batch cycle selected to be controlled. The average shall be based on all values measured during the required performance test.

(B) If the level to be established is a maximum operating parameter, the level shall be defined as the minimum of the average parameter values of the batch emission episodes, or portions thereof, in the batch cycle selected to be controlled (*i.e.*, identify the emission episode, or portion thereof, which requires the lowest parameter value in order to assure compliance. The average parameter value that is necessary to assure compliance for that emission episode, or portion thereof, shall be the level for all emission episodes, or portions thereof, in the batch cycle, that are selected to be controlled).

(C) If the level to be established is a minimum operating parameter, the level shall be defined as the maximum of the average parameter values of the batch emission episodes, or portions thereof, in the batch cycle selected to be controlled (*i.e.*, identify the emission episode, or portion thereof,

which requires the highest parameter value in order to assure compliance. The average parameter value that is necessary to assure compliance for that emission episode, or portion thereof, shall be the level for all emission episodes, or portions thereof, in the batch cycle, that are selected to be controlled).

(D) Alternatively, an average monitored parameter value shall be calculated for the entire batch cycle based on all values measured during each batch emission episode, or portion thereof, selected to be controlled.

(ii) Instead of establishing a single level for the batch cycle, as described in paragraph (b)(3)(i) of this section, an owner or operator may establish separate levels for each batch emission episode, or portion thereof, selected to be controlled. Each level shall be determined as specified in paragraph (b)(3)(i)(A) of this section.

(iii) The batch cycle shall be defined in the Notification of Compliance Status, as specified in § 63.1335(e)(5). Said definition shall include an identification of each batch emission episode and the information required to determine parameter monitoring compliance for partial batch cycles (i.e., when part of a batch cycle is accomplished during two different operating days).

(4) *Aggregate batch vent streams.* For aggregate batch vent streams, the monitoring level shall be established in accordance with paragraph (b)(2) of this section.

(c) *Establishment of parameter monitoring levels based on performance tests, supplemented by engineering assessments and/or manufacturer's recommendations.* In cases where a performance test is required by this subpart, or the owner or operator elects to do a performance test in accordance with the provisions of this subpart, and an owner or operator elects to establish a parameter monitoring level for a control, recovery, or recapture device under this paragraph (c), the owner or operator shall supplement the parameter values measured during the performance test with engineering assessments and/or manufacturer's recommendations. Performance testing is not required to be conducted over the entire range of expected parameter values.

(d) *Establishment of parameter monitoring based on engineering assessments and/or manufacturer's recommendations.* In cases where a performance test is not required by this subpart and an owner or operator elects to establish a parameter monitoring level for a control, recovery, or recapture device under this paragraph (d), the determination of the parameter monitoring level shall be based exclusively on engineering assessments and/or manufacturer's recommendations.

(e) [Reserved]

(f) *Parameter monitoring excursion definitions.* (1) With respect to storage vessels (where the applicable monitoring plan specifies continuous monitoring), continuous process vents, aggregate batch vent streams, and process wastewater streams, an excursion means any of the three cases listed in paragraphs (f)(1)(i) through (f)(1)(iii) of this section. For a control or recovery device where multiple parameters are monitored, if one or more of the parameters meets the excursion criteria in paragraphs (f)(1)(i) through (f)(1)(iii) of this section, this is considered a single excursion for the control or recovery device. For each excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart, except as provided in paragraph (g) of this section.

(i) When the daily average value of one or more monitored parameters is above the maximum level or below the minimum level established for the given parameters.

(ii) When the period of control or recovery device operation, with the exception noted in paragraph (f)(1)(v) of this section, is 4 hours or greater in an operating day, and monitoring data are

insufficient, as defined in paragraph (f)(1)(iv) of this section, to constitute a valid hour of data for at least 75 percent of the operating hours.

(iii) When the period of control or recovery device operation, with the exception noted in paragraph (f)(1)(v) of this section, is less than 4 hours in an operating day and more than two of the hours during the period of operation do not constitute a valid hour of data due to insufficient monitoring data, as defined in paragraph (f)(1)(iv) of this section.

(iv) Monitoring data are insufficient to constitute a valid hour of data, as used in paragraphs (f)(1)(ii) and (f)(1)(iii) of this section, if measured values are unavailable for any of the 15-minute periods within the hour. For data compression systems approved under § 63.1335(g)(3), monitoring data are insufficient to calculate a valid hour of data if there are less than four data measurements made during the hour.

(v) The periods listed in paragraphs (f)(1)(v)(A) through (f)(1)(v)(E) of this section are not considered to be part of the period of control or recovery device operation, for the purposes of paragraphs (f)(1)(ii) and (f)(1)(iii) of this section.

(A) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;

(B) Start-ups;

(C) Shutdowns;

(D) Malfunctions; or

(E) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

(2) With respect to batch process vents, an excursion means one of the two cases listed in paragraphs (f)(2)(i) and (f)(2)(ii) of this section. For a control device where multiple parameters are monitored, if one or more of the parameters meets the excursion criteria in either paragraph (f)(2)(i) or (f)(2)(ii) of this section, this is considered a single excursion for the control device. For each excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart, except as provided in paragraph (g) of this section.

(i) When the batch cycle daily average value of one or more monitored parameters is above the maximum or below the minimum established level for the given parameters.

(ii) When monitoring data are insufficient for an operating day. Monitoring data shall be considered insufficient when measured values are not available for at least 75 percent of the 15-minute periods when batch emission episodes selected to be controlled are being vented to the control device during the operating day, using the procedures specified in paragraphs (f)(2)(ii)(A) through (f)(2)(ii)(D) of this section.

(A) Determine the total amount of time during the operating day when batch emission episodes selected to be controlled are being vented to the control device.

(B) Subtract the time during the periods listed in paragraphs (f)(2)(ii)(B)(*1*) through (f)(2)(ii)(B)(*4*) of this section from the total amount of time determined in paragraph (f)(2)(ii)(A) of this section, to obtain the operating time used to determine if monitoring data are insufficient.

(*1*) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;

(*2*) Start-ups;

(*3*) Shutdowns; or

(*4*) Malfunctions.

(C) Determine the total number of 15-minute periods in the operating time used to determine if monitoring data are insufficient, as was determined in accordance with paragraph (f)(2)(ii)(B) of this section.

(D) If measured values are not available for at least 75 percent of the total number of 15-minute periods determined in paragraph (f)(2)(ii)(C) of this section, the monitoring data are insufficient for the operating day.

(3) For storage vessels where the applicable monitoring plan does not specify continuous monitoring, an excursion is defined in paragraph (f)(3)(i) or (ii) of this section, as applicable. For a control or recovery device where multiple parameters are monitored, if one or more of the parameters meets the excursion criteria, this is considered a single excursion for the control or recovery device. For each excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart, except as provided in paragraph (g) of this section.

(i) If the monitoring plan specifies monitoring a parameter and recording its value at specific intervals (such as every 15 minutes or every hour), either of the cases listed in paragraph (f)(3)(i)(A) or (f)(3)(i)(B) of this section is considered a single excursion for the control device. For each excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart, except as provided in paragraph (g) of this section.

(A) When the average value of one or more parameters, averaged over the duration of the filling period for the storage vessel, is above the maximum level or below the minimum level established for the given parameters.

(B) When monitoring data are insufficient. Monitoring data shall be considered insufficient when measured values are not available for at least 75 percent of the specific intervals at which parameters are to be monitored and recorded, according to the storage vessel's monitoring plan, during the filling period for the storage vessel.

(ii) If the monitoring plan does not specify monitoring a parameter and recording its value at specific intervals (for example, if the relevant operating requirement is to exchange a disposable carbon canister before expiration of its rated service life), the monitoring plan shall define an excursion in terms of the relevant operating requirement.

(4) With respect to continuous process vents complying with the mass emissions per mass product requirements specified in § 63.1316(b)(1)(i)(A), (b)(1)(ii), (b)(2)(i), (b)(2)(ii), or (c)(1)(i), an excursion has occurred when the mass emission rate calculated as specified in § 63.1318(c) exceeds the appropriate mass emissions per mass product requirement. For each excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart, except as provided in paragraph (g) of this section.

(5) With respect to continuous process vents complying with the temperature limits for final condensers specified in § 63.1316(b)(1)(i)(B) or (c)(1)(ii), an excursion has occurred when the daily average exit temperature exceeds the appropriate condenser temperature limit. For each

excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart, except as provided in paragraph (g) of this section. The periods listed in paragraphs (f)(5)(i) through (f)(5)(v) of this section are not considered to be part of the period of operation for the condenser for purposes of determining the daily average exit temperature.

(i) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;

(ii) Start-ups;

(iii) Shutdowns;

(iv) Malfunctions; or

(v) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

(6) With respect to new affected sources producing SAN using a batch process, an excursion has occurred when the percent reduction calculated using the procedures specified in § 63.1333(c) is less than 84 percent. For each excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart, except as provided in paragraph (g) of this section. The periods listed in paragraphs (f)(6)(i) through (f)(6)(v) of this section are not considered to be part of the period of control or recovery device operation for purposes of determining the percent reduction.

(i) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;

(ii) Start-ups;

(iii) Shutdowns;

(iv) Malfunctions; or

(v) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

(7) With respect to continuous process vents complying with the mass emissions per mass product requirement specified in § 63.1315(b)(2), an excursion has occurred when the mass emission rate calculated as specified in § 63.1333(b) exceeds the mass emissions per mass product requirement specified in § 63.1315(b)(2). For each excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart, except as provided in paragraph (g) of this section.

(g) *Excused excursions.* A number of excused excursions shall be allowed for each control or recovery device for each semiannual period. The number of excused excursions for each semiannual period is specified in paragraphs (g)(1) through (g)(6) of this section. This paragraph (g) applies to affected sources required to submit Periodic Reports semiannually or quarterly. The first semiannual period is the 6-month period starting the date the Notification of Compliance Status is due.

(1) For the first semiannual period -- six excused excursions.

(2) For the second semiannual period -- five excused excursions.

(3) For the third semiannual period -- four excused excursions.

(4) For the fourth semiannual period -- three excused excursions.

(5) For the fifth semiannual period -- two excused excursions.

(6) For the sixth and all subsequent semiannual periods -- one excused excursion.

**[40 CFR 63.1335]**

**General recordkeeping and reporting provisions.**

(a) *Data retention.* Unless otherwise specified in this subpart, the owner or operator of an affected source shall keep copies of all applicable records and reports required by this subpart for at least 5 years, as specified in paragraph (a)(1) of this section, with the exception listed in paragraph (a)(2) of this section.

(1) All applicable records shall be maintained in such a manner that they can be readily accessed. The most recent 6 months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request. The remaining 4 and one-half years of records may be retained offsite. 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.

(2) If an owner or operator submits copies of reports to the appropriate EPA Regional Office, the owner or operator is not required to maintain copies of reports. If the EPA Regional Office has waived the requirement of § 63.10(a)(4)(ii) for submittal of copies of reports, the owner or operator is not required to maintain copies of those reports.

(b) *Requirements of subpart A of this part.* The owner or operator of an affected source shall comply with the applicable recordkeeping and reporting requirements in subpart A of this part as specified in Table 1 of this subpart. These requirements include, but are not limited to, the requirements specified in paragraphs (b)(1) and (b)(2) of this section.

(1) *Start-up, shutdown, and malfunction plan.* The owner or operator of an affected source shall develop and implement a written start-up, shutdown, and malfunction plan as specified in § 63.6(e)(3). This plan shall describe, in detail, procedures for operating and maintaining the affected source during periods of start-up, shutdown, and malfunction and a program for corrective action for malfunctioning process and air pollution control equipment used to comply with this subpart. Inclusion of Group 2 emission points is not required, unless these points are included in an emissions average. For equipment leaks (subject to § 63.1331), the start-up, shutdown, and malfunction plan requirement is limited to control devices and is optional for other equipment. For equipment leaks, the start-up, shutdown, and malfunction plan may include written procedures that identify conditions that justify a delay of repair. A provision for ceasing to collect, during a start-up, shutdown, or malfunction, monitoring data that would otherwise be required by the provisions of this subpart may be included in the start-up, shutdown, and malfunction plan only if the owner or operator has demonstrated to the Administrator, through the Precompliance Report or a supplement to the Precompliance Report, that the monitoring system would be damaged or destroyed if it were not shut down during the start-up, shutdown, or malfunction. The affected source shall keep the start-up, shutdown, and malfunction plan on-site. Records associated with the plan shall be kept as specified in paragraphs (b)(1)(i)(A) through (b)(1)(i)(C) of this section. Reports related to the plan shall be submitted as specified in paragraph (b)(1)(ii) of this section.

(i) *Records of start-up, shutdown, and malfunction.* The owner or operator shall keep the records specified in paragraphs (b)(1)(i)(A) through (b)(1)(i)(C) of this section.

(A) Records of the occurrence and duration of each start-up, shutdown, and malfunction of operation of process equipment or control devices or recovery devices or continuous monitoring systems used to comply with this subpart during which excess emissions (as defined in § 63.1310(j)(4)) occur.

(B) For each start-up, shutdown, or malfunction during which excess emissions (as defined in § 63.1310(j)(4)) occur, records reflecting whether the procedures specified in the affected source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. For example, if a start-up, shutdown, and malfunction plan includes procedures for routing a control device to a backup control device, records shall be kept of whether the plan was followed. These records may take the form of a "checklist," or other form of recordkeeping that confirms conformance with the start-up shutdown, and malfunction plan for the event.

(C) Records specified in paragraphs (b)(1)(i)(A) through (b)(1)(i)(B) of this section are not required if they pertain solely to Group 2 emission points that are not included in an emissions average.

(ii) *Reports of start-up, shutdown, and malfunction.* For the purposes of this subpart, the semiannual start-up, shutdown, and malfunction reports shall be submitted on the same schedule as the Periodic Reports required under paragraph (e)(6) of this section instead of being submitted on the schedule specified in § 63.10(d)(5)(i). The reports shall include the information specified in § 63.10(d)(5)(i).

(2) *Application for approval of construction or reconstruction.* For new affected sources, each owner or operator shall comply with the provisions in § 63.5 regarding construction and reconstruction, excluding the provisions specified in § 63.5(d)(1)(ii)(H), (d)(1)(iii), (d)(2), and (d)(3)(ii).

(c) [Reserved]

(d) *Recordkeeping and documentation.* Owners or operators required to keep continuous records shall keep records as specified in paragraphs (d)(1) through (d)(7) of this section, unless an alternative recordkeeping system has been requested and approved as specified in paragraph (g) of this section, and except as provided in paragraph (h) of this section. If a monitoring plan for storage vessels pursuant to § 63.1314(a)(9) requires continuous records, the monitoring plan shall specify which provisions, if any, of paragraphs (d)(1) through (d)(7) of this section apply. As described in § 63.1314(a)(9), certain storage vessels are not required to keep continuous records as specified in this paragraph. Owners and operators of such storage vessels shall keep records as specified in the monitoring plan required by § 63.1314(a)(9). Paragraphs (d)(8) and (d)(9) of this section specify documentation requirements.

(1) The monitoring system shall measure data values at least once every 15 minutes.

(2) The owner or operator shall record either each measured data value or 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. Owners or operators of batch process vents shall record each measured data value.

(3) Daily average (or batch cycle daily average) values of each continuously monitored parameter shall be calculated for each operating day as specified in paragraphs (d)(3)(i) through (d)(3)(ii) of this section, except as specified in paragraphs (d)(6) and (d)(7) of this section.

(i) The daily average value or batch cycle daily average shall be calculated as the average of all parameter values recorded during the operating day, except as specified in paragraph (d)(7) of this section. For batch process vents, as specified in § 63.1326(e)(2)(i), only parameter values measured during those batch emission episodes, or portions thereof, in the batch cycle that the owner or operator has chosen to control shall be used to calculate the average. The calculated average shall cover a 24-hour period if operation is continuous, or the number of hours of operation per operating day if operation is not continuous.

(ii) The operating day shall be the period the owner or operator specifies in the operating permit or the Notification of Compliance Status for purposes of determining daily average values or batch cycle daily average values of monitored parameters.

(4)-(5) [Reserved]

(6) *Records required when all recorded values are within the established limits.* If all recorded values for a monitored parameter during an operating day are above the minimum level or below the maximum level established in the Notification of Compliance Status or operating permit, the owner or operator may record that all values were above the minimum level or below the maximum level rather than calculating and recording a daily average (or batch cycle daily average) for that operating day.

(7) Monitoring data recorded during periods identified in paragraphs (d)(7)(i) through (d)(7)(v) of this section 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 or recovery device operation when monitors are not operating.

(i) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;

(ii) Start-ups;

(iii) Shutdowns;

(iv) Malfunctions;

(v) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

(8) For continuous monitoring systems used to comply with this subpart, records documenting the completion of calibration checks, and records documenting the maintenance of continuous monitoring systems that are specified in the manufacturer's instructions or that are specified in other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

(9) The owner or operator of an affected source granted a waiver under § 63.10(f) shall maintain the information, if any, specified by the Administrator as a condition of the waiver of recordkeeping or reporting requirements.

(e) *Reporting and notification.* In addition to the reports and notifications required by subpart A of this part as specified in Table 1 of this subpart, the owner or operator of an affected source shall prepare and submit the reports listed in paragraphs (e)(3) through (e)(8) of this section, as applicable. All reports required by this subpart, and the schedule for their submittal, are listed in Table 9 of this subpart.

(1) Owners and operators shall not be in violation of the reporting requirements of this subpart for failing to submit information required to be included in a specified report if the owner or operator meets the requirements in paragraphs (e)(1)(i) through (e)(1)(iii) of this section. Examples of circumstances where this paragraph may apply include information related to newly-added equipment or emission points, changes in the process, changes in equipment required or utilized for compliance with the requirements of this subpart, or changes in methods or equipment for monitoring, recordkeeping, or reporting.

(i) The information was not known in time for inclusion in the report specified by this subpart;

(ii) The owner or operator has been diligent in obtaining the information; and

(iii) The owner or operator submits a report according to the provisions of paragraphs (e)(1)(iii)(A) through (e)(1)(iii)(C) of this section.

(A) If this subpart expressly provides for supplements to the report in which the information is required, the owner or operator shall submit the information as a supplement to that report. The information shall be submitted no later than 60 days after it is obtained, unless otherwise specified in this subpart.

(B) If this subpart does not expressly provide for supplements, but the owner or operator must submit a request for revision of an operating permit pursuant to part 70 or part 71, due to circumstances to which the information pertains, the owner or operator shall submit the information with the request for revision to the operating permit.

(C) In any case not addressed by paragraph (e)(1)(iii)(A) or (e)(1)(iii)(B) of this paragraph, the owner or operator shall submit the information with the first Periodic Report, as required by this subpart, which has a submission deadline at least 60 days after the information is obtained.

(2) All reports required under this subpart shall be sent to the Administrator at the appropriate address listed in § 63.13. If acceptable to both the Administrator and the owner or operator of an affected source, reports may be submitted on electronic media.

(3) *Precompliance Report.* Owners or operators of affected sources requesting an extension for compliance; requesting approval to use alternative monitoring parameters, alternative continuous monitoring and recordkeeping, or alternative controls; requesting approval to use engineering assessment to estimate emissions from a batch emissions episode, as described in § 63.1323(b)(6)(i)(C); wishing to establish parameter monitoring levels according to the procedures contained in § 63.1334(c) or (d); or requesting approval to incorporate a provision for ceasing to collect monitoring data, during a start-up, shutdown, or malfunction, into the start-up, shutdown, and malfunction plan, when that monitoring equipment would be damaged if it did not cease to collect monitoring data, as permitted under § 63.1310(j)(3), shall submit a Precompliance Report according to the schedule described in paragraph (e)(3)(i) of this section. The Precompliance Report shall contain the information specified in paragraphs (e)(3)(ii) through (e)(3)(viii) of this section, as appropriate.

(i) *Submittal dates.* The Precompliance Report shall be submitted to the Administrator no later than December 19, 2000. If a Precompliance Report was submitted prior to June 19, 2000 and no changes need to be made to that Precompliance Report, the owner or operator shall re-submit the earlier report or submit notification that the previously submitted report is still valid. Unless the Administrator objects to a request submitted in the Precompliance Report within 45 days after its receipt, the request shall be deemed approved. For new affected sources, the Precompliance Report shall be submitted to the Administrator with the application for approval of construction or

reconstruction required in paragraph (b)(2) of this section. Supplements to the Precompliance Report may be submitted as specified in paragraph (e)(3)(ix) of this section.

(ii) A request for an extension for compliance, as specified in § 63.1311(e), may be submitted in the Precompliance Report. The request for a compliance extension shall include the data outlined in § 63.6(i)(6)(i)(A), (B), and (D), as required in § 63.1311(e)(1).

(iii) The alternative monitoring parameter information required in paragraph (f) of this section shall be submitted in the Precompliance Report if, for any emission point, the owner or operator of an affected source seeks to comply through the use of a control technique other than those for which monitoring parameters are specified in this subpart or in subpart G of this part or seeks to comply by monitoring a different parameter than those specified in this subpart or in subpart G of this part.

(iv) If the affected source seeks to comply using alternative continuous monitoring and recordkeeping as specified in paragraph (g) of this section, the owner or operator shall submit a request for approval in the Precompliance Report.

(v) The owner or operator shall report the intent to use alternative controls to comply with the provisions of this subpart in the Precompliance Report. The Administrator may deem alternative controls to be equivalent to the controls required by the standard, under the procedures outlined in § 63.6(g).

(vi) If a request for approval to use engineering assessment to estimate emissions from a batch emissions episode, as described in § 63.1323(b)(6)(i)(C) is being made, the information required by § 63.1323(b)(6)(iii)(B) shall be submitted in the Precompliance Report.

(vii) If an owner or operator establishes parameter monitoring levels according to the procedures contained in § 63.1334(c) or (d), the following information shall be submitted in the Precompliance Report:

(A) Identification of which procedures (*i.e.,* § 63.1334(c) or (d)) are to be used; and

(B) A description of how the parameter monitoring level is to be established. If the procedures in § 63.1334(c) are to be used, a description of how performance test data will be used shall be included.

(viii) If the owner or operator is requesting approval to incorporate a provision for ceasing to collect monitoring data, during a start-up, shutdown, or malfunction, into the start-up, shutdown, and malfunction plan, when that monitoring equipment would be damaged if it did not cease to collect monitoring data, the information specified in paragraphs (e)(3)(viii)(A) and (B) shall be supplied in the Precompliance Report or in a supplement to the Precompliance Report. The Administrator shall evaluate the supporting documentation and shall approve the request only if, in the Administrator's judgment, the specific monitoring equipment would be damaged by the contemporaneous start-up, shutdown, or malfunction.

(A) Documentation supporting a claim that the monitoring equipment would be damaged by the contemporaneous start-up, shutdown, or malfunction; and

(B) A request to incorporate such a provision for ceasing to collect monitoring data during a start-up, shutdown, or malfunction, into the start-up, shutdown, and malfunction plan.

(ix) Supplements to the Precompliance Report may be submitted as specified in paragraphs (e)(3)(ix)(A) or (e)(3)(ix)(B) of this section. Unless the Administrator objects to a request

submitted in a supplement to the Precompliance Report within 45 days after its receipt, the request shall be deemed approved.

(A) Supplements to the Precompliance Report may be submitted to clarify or modify information previously submitted.

(B) Supplements to the Precompliance Report may be submitted to request approval to use alternative monitoring parameters, as specified in paragraph (e)(3)(iii) of this section; to use alternative continuous monitoring and recordkeeping, as specified in paragraph (e)(3)(iv) of this section; to use alternative controls, as specified in paragraph (e)(3)(v) of this section; to use engineering assessment to estimate emissions from a batch emissions episode, as specified in paragraph (e)(3)(vi) of this section; to establish parameter monitoring levels according to the procedures contained in § 63.1334(c) or (d), as specified in paragraph (e)(3)(vii) of this section; or to include a provision for ceasing to collect monitoring data during a start-up, shutdown, or malfunction, in the start-up, shutdown, and malfunction plan, when that monitoring equipment would be damaged if it did not cease to collect monitoring data, as specified in paragraph (e)(3)(viii) of this section.

(4) Emissions Averaging Plan. For all existing affected sources using emissions averaging, an Emissions Averaging Plan shall be submitted for approval according to the schedule and procedures described in paragraph (e)(4)(i) of this section. The Emissions Averaging Plan shall contain the information specified in paragraph (e)(4)(ii) of this section, unless the information required in paragraph (e)(4)(ii) of this section is submitted with an operating permit application. An owner or operator of an affected source who submits an operating permit application instead of an Emissions Averaging Plan shall submit the information specified in paragraph (e)(8) of this section. In addition, a supplement to the Emissions Averaging Plan, as required under paragraph (e)(4)(iii) of this section, is to be submitted whenever additional alternative controls or operating scenarios may be used to comply with this subpart. Updates to the Emissions Averaging Plan shall be submitted in accordance with paragraph (e)(4)(iv) of this section.

(i) *Submittal and approval.* The Emissions Averaging Plan shall be submitted no later than September 19, 2000, and it is subject to Administrator approval. If an Emissions Averaging Plan was submitted prior to June 19, 2000 and no changes need to be made to that Emissions Averaging Plan, the owner or operator shall re-submit the earlier plan or submit notification that the previously submitted plan is still valid. The Administrator shall determine within 120 days whether the Emissions Averaging Plan submitted presents sufficient information. The Administrator shall either approve the Emissions Averaging Plan, request changes, or request that the owner or operator submit additional information. Once the Administrator receives sufficient information, the Administrator shall approve, disapprove, or request changes to the plan within 120 days.

(ii) *Information required.* The Emissions Averaging Plan shall contain the information listed in paragraphs (e)(4)(ii)(A) through (e)(4)(ii)(N) of this section for all emission points included in an emissions average.

(A) The required information shall include the identification of all emission points in the planned emissions average and, where applicable, notation of whether each storage vessel, continuous process vent, batch process vent, aggregate batch vent stream, and process wastewater stream is a Group 1 or Group 2 emission point, as defined in § 63.1312 or as designated under § 63.1332 (c)(3) through (c)(5).

(B) The required information shall include the projected emission debits and credits for each emission point and the sum for the emission points involved in the average calculated according to

§ 63.1332. The projected credits shall be greater than or equal to the projected debits, as required under § 63.1332(e)(3).

(C) The required information shall include the specific control technology or pollution prevention measure that will be used for each emission point included in the average and date of application or expected date of application.

(D) The required information shall include the specific identification of each emission point affected by a pollution prevention measure. To be considered a pollution prevention measure, the criteria in § 63.1332(j)(1) shall be met. If the same pollution prevention measure reduces or eliminates emissions from multiple emission points in the average, the owner or operator shall identify each of these emission points.

(E) The required information shall include a statement that the compliance demonstration, monitoring, inspection, recordkeeping, and reporting provisions in § 63.1332 (m), (n), and (o) that are applicable to each emission point in the emissions average will be implemented beginning on or before the date of compliance.

(F) The required information shall include documentation of the data listed in paragraphs (e)(4)(ii)(F)(*1*) through (e)(4)(ii)(F)(*5*) of this section for each storage vessel and continuous process vent subject to § 63.1315 included in the average.

(*1*) The required documentation shall include the values of the parameters used to determine whether the emission point is Group 1 or Group 2. Where TRE index value is used for continuous process vent group determination, the estimated or measured values of the parameters used in the TRE equation in § 63.115(d) and the resulting TRE index value shall be submitted.

(*2*) The required documentation shall include the estimated values of all parameters needed for input to the emission debit and credit calculations in § 63.1332(g) and (h). These parameter values shall be specified in the affected source's Emissions Averaging Plan (or operating permit) as enforceable operating conditions. Changes to these parameters shall be reported as required by paragraph (e)(4)(iv) of this section.

(*3*) The required documentation shall include the estimated percent reduction if a control technology achieving a lower percent reduction than the efficiency of the applicable reference control technology or standard is or will be applied to the emission point.

(*4*) The required documentation shall include the anticipated nominal efficiency if a control technology achieving a greater percent emission reduction than the efficiency of the reference control technology is or will be applied to the emission point. The procedures in § 63.1332(i) shall be followed to apply for a nominal efficiency, and the report specified in paragraph (e)(7)(ii) of this section shall be submitted with the Emissions Averaging Plan as specified in paragraph (e)(7)(ii)(A) of this section.

(*5*) The required documentation shall include the monitoring plan specified in § 63.122(b), to include the information specified in § 63.120(d)(2)(i) and in either § 63.120(d)(2)(ii) or (d)(2)(iii) for each storage vessel controlled with a closed-vent system using a control device other than a flare.

(G) The information specified in paragraph (f) of this section shall be included in the Emissions Averaging Plan for:

(*1*) Each continuous process vent subject to § 63.1315 controlled by a pollution prevention measure or control technique for which monitoring parameters or inspection procedures are not specified in § 63.114; and

(*2*) Each storage vessel controlled by pollution prevention or a control technique other than an internal or external floating roof or a closed vent system with a control device.

(H) The required information shall include documentation of the data listed in paragraphs (e)(4)(ii)(H)(*1*) through (e)(4)(ii)(H)(*5*) of this section for each collection of continuous process vents located in a process section within the affected source subject to § 63.1316 (b)(1)(i), (b)(1)(ii), (b)(2)(i), (b)(2)(ii), or (c)(1) included in the average.

(*1*) For continuous process vents subject to § 63.1316(b)(1)(i), the required documentation shall include the values of the parameters used to determine whether the emission point is Group 1 or Group 2. Continuous process vents subject to § 63.1316 (b)(1)(ii), (b)(2)(i), (b)(2)(ii), or (c)(1) are considered Group 1 emission points for purposes of emissions averaging, as specified in § 63.1332(c)(5).

(*2*) The required documentation shall include the estimated values of all parameters needed for input to the emission debit and credit calculations in § 63.1332(g) and (h). These parameter values shall be specified in the affected source's Emissions Averaging Plan (or operating permit) as enforceable operating conditions. Changes to these parameters shall be reported as required by paragraph (e)(4)(iv) of this section.

(*3*) For process sections generating debits or credits by comparing actual emissions expressed as kg HAP emissions per Mg of product to the applicable standard, the required documentation shall include the actual emission level expressed as kg HAP emissions per Mg of product.

(*4*) For process sections using combustion control devices, the required documentation shall include the estimated percent reduction if a control technology achieving a lower percent reduction than the efficiency of the applicable reference control technology or standard is or will be applied to the emission point.

(*5*) For process sections using combustion control devices, the required documentation shall include the anticipated nominal efficiency if a control technology achieving a greater percent emission reduction than the efficiency of the reference control technology is or will be applied to the emission point. The procedures in § 63.1332(i) shall be followed to apply for a nominal efficiency.

(I) For each pollution prevention measure or control device used to reduce air emissions of organic HAP from each collection of continuous process vents located in a process section within the affected source subject to § 63.1316 (b)(1)(i), (b)(1)(ii), (b)(2)(i), (b)(2)(ii), or (c)(1) and for which no monitoring parameters or inspection procedures are specified in § 63.114, the information specified in paragraph (f) of this section, Alternative Monitoring Parameters, shall be included in the Emissions Averaging Plan.

(J) The required information shall include documentation of the data listed in paragraphs (e)(4)(ii)(J)(*1*) through (e)(4)(ii)(J)(*3*) of this section for each batch process vent and aggregate batch vent stream included in the average.

(*1*) The required documentation shall include the values of the parameters used to determine whether the emission point is Group 1 or Group 2.

(*2*) The required documentation shall include the estimated values of all parameters needed for input to the emission debit and credit calculations in § 63.1332(g) and (h). These parameter values shall be specified in the affected source's Emissions Averaging Plan (or operating permit) as enforceable operating conditions. Changes to these parameters shall be reported as required by paragraph (e)(4)(iv) of this section.

(*3*) For batch process vents, the required documentation shall include the estimated percent reduction for the batch cycle. For aggregate batch vent streams, the required documentation shall include the estimated percent reduction achieved on a continuous basis.

(K) For each pollution prevention measure or control device used to reduce air emissions of organic HAP from batch process vents or aggregate batch vent streams and for which no monitoring parameters or inspection procedures are specified in § 63.1324, the information specified in paragraph (f) of this section, Alternative Monitoring Parameters, shall be included in the Emissions Averaging Plan.

(L) The required information shall include documentation of the data listed in paragraphs (e)(4)(ii)(L)(*1*) through (e)(4)(ii)(L)(*4*) of this section for each process wastewater stream included in the average.

(*1*) The required documentation shall include the data used to determine whether the wastewater stream is a Group 1 or Group 2 wastewater stream.

(*2*) The required documentation shall include the estimated values of all parameters needed for input to the wastewater emission credit and debit calculations in § 63.1332(g) and (h). These parameter values shall be specified in the affected source's Emissions Averaging Plan (or operating permit) as enforceable operating conditions. Changes to these parameters shall be reported as required by paragraph (e)(4)(iv) of this section.

(*3*) The required documentation shall include the estimated percent reduction if:

(*i*) A control technology that achieves an emission reduction less than or equal to the emission reduction that would otherwise have been achieved by a steam stripper designed to the specifications found in § 63.138(g) is or will be applied to the wastewater stream;

(*ii*) A control technology achieving less than or equal to 95 percent emission reduction is or will be applied to the vapor stream(s) vented and collected from the treatment processes; or

(*iii*) A pollution prevention measure is or will be applied.

(*4*) The required documentation shall include the anticipated nominal efficiency if the owner or operator plans to apply for a nominal efficiency under § 63.1332(i). A nominal efficiency shall be applied for if:

(*i*) A control technology that achieves an emission reduction greater than the emission reduction that would have been achieved by a steam stripper designed to the specifications found in § 63.138(g), is or will be applied to the wastewater stream; or

(*ii*) A control technology achieving greater than 95 percent emission reduction is or will be applied to the vapor stream(s) vented and collected from the treatment processes.

(M) For each pollution prevention measure, treatment process, or control device used to reduce air emissions of organic HAP from wastewater and for which no monitoring parameters or inspection

procedures are specified in § 63.143, the information specified in paragraph (f) of this section, Alternative Monitoring Parameters, shall be included in the Emissions Averaging Plan.

(N) The required information shall include documentation of the data required by § 63.1332(k). The documentation shall demonstrate that the emissions from the emission points proposed to be included in the average will not result in greater hazard or, at the option of the Administrator, greater risk to human health or the environment than if the emission points were not included in an emissions average.

(iii) *Supplement to Emissions Averaging Plan.* The owner or operator required to prepare an Emissions Averaging Plan under paragraph (e)(4) of this section shall also prepare a supplement to the Emissions Averaging Plan for any additional alternative controls or operating scenarios that may be used to achieve compliance.

(iv) *Updates to Emissions Averaging Plan.* The owner or operator of an affected source required to submit an Emissions Averaging Plan under paragraph (e)(4) of this section shall also submit written updates of the Emissions Averaging Plan to the Administrator for approval under the circumstances described in paragraphs (e)(4)(iv)(A) through (e)(4)(iv)(C) of this section unless the relevant information has been included and submitted in an operating permit application or amendment.

(A) The owner or operator who plans to make a change listed in either paragraph (e)(4)(iv)(A)(*1*) or (e)(4)(iv)(A)(*2*) of this section shall submit an Emissions Averaging Plan update at least 120 days prior to making the change.

(*1*) An Emissions Averaging Plan update shall be submitted whenever an owner or operator elects to achieve compliance with the emissions averaging provisions in § 63.1332 by using a control technique other than that specified in the Emissions Averaging Plan or plans to monitor a different parameter or operate a control device in a manner other than that specified in the Emissions Averaging Plan.

(*2*) An Emissions Averaging Plan update shall be submitted whenever an emission point or a TPPU is added to an existing affected source and is planned to be included in an emissions average, or whenever an emission point not included in the emissions average described in the Emissions Averaging Plan is to be added to an emissions average. The information in paragraph (e)(4) of this section shall be updated to include the additional emission point.

(B) The owner or operator who has made a change as defined in paragraph (e)(4)(iv)(B)(*1*) or (e)(4)(iv)(B)(*2*) of this section shall submit an Emissions Averaging Plan update within 90 days after the information regarding the change is known to the affected source. The update may be submitted in the next quarterly periodic report if the change is made after the date the Notification of Compliance Status is due.

(*1*) An Emissions Averaging Plan update shall be submitted whenever a process change is made such that the group status of any emission point in an emissions average changes.

(*2*) An Emissions Averaging Plan update shall be submitted whenever a value of a parameter in the emission credit or debit equations in § 63.1332 (g) or (h) changes such that it is below the minimum or above the maximum established level specified in the Emissions Averaging Plan and causes a decrease in the projected credits or an increase in the projected debits.

(C) The Administrator shall approve or request changes to the Emissions Averaging Plan update within 120 days of receipt of sufficient information regarding the change for emission points included in emissions averages.

(5) *Notification of Compliance Status.* For existing and new affected sources, a Notification of Compliance Status shall be submitted. For equipment leaks subject to § 63.1331, the owner or operator shall submit the information required in § 63.182(c) in the Notification of Compliance Status within 150 days after the first applicable compliance date for equipment leaks in the affected source, and an update shall be provided in the first Periodic Report that is due at least 150 days after each subsequent applicable compliance date for equipment leaks in the affected source. For all other emission points, including heat exchange systems, the Notification of Compliance Status shall contain the information listed in paragraphs (e)(5)(i) through (e)(5)(xi) of this section, as applicable, and shall be submitted no later than 150 days after the compliance dates specified in this subpart.

(i) The results of any emission point group determinations, process section applicability determinations, performance tests, inspections, any other information used to demonstrate compliance, values of monitored parameters established during performance tests, and any other information required to be included in the Notification of Compliance Status under §§ 63.1311(m), 63.122, and 63.1314 for storage vessels, § 63.117 for continuous process vents, § 63.146 for process wastewater, §§ 63.1316 through 63.1320 for continuous process vents subject to § 63.1316, § 63.1327 for batch process vents, § 63.1329 for process contact cooling towers, and § 63.1332 for emission points included in an emissions average. In addition, the owner or operator of an affected source shall comply with paragraphs (e)(5)(i)(A) and (e)(5)(i)(B) of this section.

(A) For performance tests, group determinations, and process section applicability determinations that are based on measurements, the Notification of Compliance Status shall include one complete test report, as described in paragraph (e)(5)(i)(B) of this section, for each test method used for a particular kind of emission point. For additional tests performed for the same kind of emission point using the same method, the results and any other information, from the test report, that is requested on a case-by-case basis by the Administrator shall be submitted, but a complete test report is not required.

(B) A complete test report shall include a brief process description, 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.

(ii) For each monitored parameter for which a maximum or minimum level is required to be established under § 63.114(e) for continuous process vents, § 63.1324 for batch process vents and aggregate batch vent streams, § 63.143(f) for process wastewater, § 63.1332(m) for emission points in emissions averages, paragraph (e)(8) of this section, or paragraph (f) of this section, the Notification of Compliance Status shall contain the information specified in paragraphs (e)(5)(ii)(A) through (e)(5)(ii)(D) of this section, unless this information has been established and provided in the operating permit application. Further, as described in § 63.1314(a)(9), for those storage vessels for which the monitoring plan required by § 63.1314(a)(9) specifies compliance with the provisions of § 63.1334, the owner or operator shall provide the information specified in paragraphs (e)(5)(ii)(A) through (e)(5)(ii)(D) of this section for each monitored parameter, unless this information has been established and provided in the operating permit application. For those storage vessels for which the monitoring plan required by § 63.1314(a)(9) does not require compliance with the provisions of § 63.1334, the owner or operator shall provide the information specified in § 63.120(d)(3) as part of the Notification of Compliance Status, unless this information has been established and provided in the operating permit application.

(A) The required information shall include the specific maximum or minimum level of the monitored parameter(s) for each emission point.

(B) The required information shall include the rationale for the specific maximum or minimum level for each parameter for each emission point, including any data and calculations used to develop the level and a description of why the level indicates proper operation of the control device.

(C) The required information shall include a definition of the affected source's operating day, as specified in paragraph (d)(3)(ii) of this section, for purposes of determining daily average values or batch cycle daily average values of monitored parameters.

(D) For batch process vents, the required information shall include a definition of each batch cycle that requires the control of one or more batch emission episodes during the cycle, as specified in § 63.1325(c)(2) and § 63.1334(b)(3)(iii).

(iii) For emission points included in an emissions average, the Notification of Compliance Status shall contain the values of all parameters needed for input to the emission credit and debit equations in § 63.1332 (g) and (h), calculated or measured according to the procedures in § 63.1332 (g) and (h), and the resulting calculation of credits and debits for the first quarter of the year. The first quarter begins on the compliance date specified.

(iv) The determination of applicability for flexible operation units as specified in § 63.1310(f).

(v) The parameter monitoring levels for flexible operation units, and the basis on which these levels were selected, or a demonstration that these levels are appropriate at all times, as specified in § 63.1310(f)(7).

(vi) The results for each predominant use determination made under § 63.1310(g), for storage vessels assigned to an affected source subject to this subpart.

(vii) The results for each predominant use determination made under § 63.1310(h), for recovery operations equipment assigned to an affected source subject to this subpart.

(viii) For owners or operators of Group 2 batch process vents establishing a batch mass input limitation as specified in § 63.1325(g), the affected source's operating year for purposes of determining compliance with the batch mass input limitation.

(ix) If any emission point is subject to this subpart and to other standards as specified in § 63.1311, and if the provisions of § 63.1311 allow the owner or operator to choose which testing, monitoring, reporting, and recordkeeping provisions will be followed, then the Notification of Compliance Status shall indicate which rule's requirements will be followed for testing, monitoring, reporting, and recordkeeping.

(x) An owner or operator who transfers a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream for treatment pursuant to § 63.132(g) shall include in the Notification of Compliance Status the name and location of the transferee and a description of the Group 1 wastewater stream or residual sent to the treatment facility.

(xi) An owner or operator complying with paragraph (h)(1) of this section shall notify the Administrator of the election to comply with paragraph (h)(1) of this section as part of the Notification of Compliance Status or as part of the appropriate Periodic Report as specified in paragraph (e)(6)(ix) of this section.

(6) *Periodic Reports.* For existing and new affected sources, the owner or operator shall submit Periodic Reports as specified in paragraphs (e)(6)(i) through (e)(6)(xi) of this section. In addition, for equipment leaks subject to § 63.1331, the owner or operator shall submit the information specified in § 63.182(d) under the conditions listed in § 63.182(d), and for heat exchange systems subject to § 63.1328, the owner or operator shall submit the information specified in § 63.104(f)(2) as part of the Periodic Report required by this paragraph (e)(6). Section 63.1334 shall govern the use of monitoring data to determine compliance for Group 1 emissions points and for Group 1 and Group 2 emission points included in emissions averages with the following exception: As discussed in § 63.1314(a)(9), for storage vessels to which the provisions of § 63.1334 do not apply, as specified in the monitoring plan required by § 63.120(d)(2), the owner or operator is required to comply with the requirements set out in the monitoring plan, and monitoring records may be used to determine compliance.

(i) Except as specified in paragraphs (e)(6)(xi) and (e)(6)(xii) of this section, a report containing the information in paragraph (e)(6)(ii) of this section or containing the information in paragraphs (e)(6)(iii) through (e)(6)(x) of this section, as appropriate, shall be submitted semiannually no later than 60 days after the end of each 6-month period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status is due.

(ii) If none of the compliance exceptions specified in paragraphs (e)(6)(iii) through (e)(6)(ix) of this section occurred during the 6-month period, the Periodic Report required by paragraph (e)(6)(i) of this section shall be a statement that there were no compliance exceptions as described in this paragraph for the 6-month period covered by that report and no activities specified in paragraphs (e)(6)(iii) through (e)(6)(ix) of this section occurred during the 6-month period covered by that report.

(iii) For an owner or operator of an affected source complying with the provisions of §§ 63.1314 through 63.1330 for any emission point or process section, Periodic Reports shall include:

(A) All information specified in § 63.122 for storage vessels; §§ 63.117 and 63.118 and § 63.1320 for continuous process vents, as applicable; § 63.1327 for batch process vents and aggregate batch vent streams; § 63.104 for heat exchange systems; and § 63.146 for process wastewater;

(B) The daily average values or batch cycle daily average values of monitored parameters for both excused excursions, as defined in § 63.1334(g), and unexcused excursions, as defined in § 63.1334(f). For excursions caused by lack of monitoring data, the start-time and duration of periods when monitoring data were not collected shall be specified.

(C) [Reserved]

(D) The information in paragraphs (e)(6)(iii)(D)(*1*) through (e)(6)(iii)(D)(*4*) of this section, as applicable:

(*1*) Any supplements to the Emissions Averaging Plan, as required in paragraph (e)(4)(iii) of this section;

(*2*) Notification if a process change is made such that the group status of any emission point changes from Group 2 to Group 1. The owner or operator is not required to submit a notification of a process change if that process change caused the group status of an emission point to change from Group 1 to Group 2. However, until the owner or operator notifies the Administrator that the group status of an emission point has changed from Group 1 to Group 2, the owner or operator is

required to continue to comply with the Group 1 requirements for that emission point. This notification may be submitted at any time.

(*3*) Notification if one or more emission point(s) (other than equipment leaks) or one or more TPPU is added to an affected source. The owner or operator shall submit the information contained in paragraphs (e)(6)(iii)(D)(*3*)(*i*) through (e)(6)(iii)(D)(*3*)(*ii*) of this section:

(*i*) A description of the addition to the affected source; and

(*ii*) Notification of the group status of the additional emission point or all emission points in the TPPU.

(*4*) For process wastewater streams sent for treatment pursuant to § 63.132(g), reports of changes in the identity of the treatment facility or transferee.

(E) The information in paragraph (b)(1)(ii) of this section for reports of start-up, shutdown, and malfunction.

(iv) For each batch process vent with a batch mass input limitation, every second Periodic Report shall include the mass of HAP or material input to the batch unit operation during the 12-month period covered by the preceding and current Periodic Reports, and a statement of whether the batch process vent was in or out of compliance with the batch mass input limitation.

(v) If any performance tests are reported in a Periodic Report, the following information shall be included:

(A) One complete test report shall be submitted for each test method used for a particular kind of emission point tested. A complete test report shall contain the information specified in paragraph (e)(5)(i)(B) of this section.

(B) For additional tests performed for the same kind of emission point using the same method, results and any other information, pertaining to the performance test, that is requested on a case-by-case basis by the Administrator shall be submitted, but a complete test report is not required.

(vi) Notification of a change in the primary product of a TPPU, in accordance with the provisions in § 63.1310(f). This includes a change in primary product from one thermoplastic product to either another thermoplastic product or to a non-thermoplastic product.

(vii) The results for each change made to a predominant use determination made under § 63.1310(g) for a storage vessel that is assigned to an affected source subject to this subpart after the change.

(viii) The Periodic Report shall include the results for each change made to a predominant use determination made under § 63.1310(h) for recovery operations equipment assigned to an affected source subject to this subpart after the change.

(ix) An owner or operator complying with paragraph (h)(1) of this section shall notify the Administrator of the election to comply with paragraph (h)(1) of this section as part of the Periodic Report or as part of the Notification of Compliance Status as specified in paragraph (e)(5)(xi) of this section.

(x) An owner or operator electing not to retain daily average or batch cycle daily average values under paragraph (h)(2) of this section shall notify the Administrator as specified in paragraph (h)(2)(i) of this section.

(xi) The owner or operator of an affected source shall submit quarterly reports for all emission points included in an emissions average as specified in paragraphs (e)(6)(xi)(A) through (e)(6)(xi)(C) of this section.

(A) The quarterly reports shall be submitted no later than 60 days after the end of each quarter. The first report shall be submitted with the Notification of Compliance Status no later than 150 days after the compliance date.

(B) The quarterly reports shall include the information specified in paragraphs (e)(6)(xi)(B)(*1*) through (e)(6)(xi)(B)(*7*) of this section for all emission points included in an emissions average.

(*1*) The credits and debits calculated each month during the quarter;

(*2*) A demonstration that debits calculated for the quarter are not more than 1.30 times the credits calculated for the quarter, as required under § 63.1332(e)(4);

(*3*) The values of any inputs to the debit and credit equations in § 63.1332(g) and (h) that change from month to month during the quarter or that have changed since the previous quarter;

(*4*) Results of any performance tests conducted during the reporting period including one complete report for each test method used for a particular kind of emission point as described in paragraph (e)(6)(v) of this section;

(*5*) Reports of daily average (or batch cycle daily average) values of monitored parameters for excursions as defined in § 63.1334(f);

(*6*) For excursions caused by lack of monitoring data, the duration of periods when monitoring data were not collected shall be specified; and

(*7*) Any other information the affected source is required to report under the operating permit or Emissions Averaging Plan for the affected source.

(C) Every fourth quarterly report shall include the following:

(*1*) A demonstration that annual credits are greater than or equal to annual debits as required by § 63.1332(e)(3); and

(*2*) A certification of compliance with all the emissions averaging provisions in § 63.1332.

(xii) The owner or operator of an affected source shall submit quarterly reports for particular emission points and process sections not included in an emissions average as specified in paragraphs (e)(6)(xii)(A) through (e)(6)(xii)(D) of this section.

(A) The owner or operator of an affected source shall submit quarterly reports for a period of 1 year for an emission point or process section that is not included in an emissions average if:

(*1*) A control or recovery device for a particular emission point or process section has more excursions, as defined in § 63.1334(f), than the number of excused excursions allowed under § 63.1334(g) for a semiannual reporting period; or

(*2*) The Administrator requests that the owner or operator submit quarterly reports for the emission point or process section.

(B) The quarterly reports shall include all information specified in paragraphs (e)(6)(iii) through (e)(6)(ix) of this section applicable to the emission point or process section for which quarterly

reporting is required under paragraph (e)(6)(xii)(A) of this section. Information applicable to other emission points within the affected source shall be submitted in the semiannual reports required under paragraph (e)(6)(i) of this section.

(C) Quarterly reports shall be submitted no later than 60 days after the end of each quarter.

(D) After quarterly reports have been submitted for an emission point for 1 year without more excursions occurring (during that year) than the number of excused excursions allowed under § 63.1334(g), the owner or operator may return to semiannual reporting for the emission point or process section.

(7) *Other reports.* Other reports shall be submitted as specified in paragraphs (e)(7)(i) through (e)(7)(iv) of this section.

(i) For storage vessels, the notifications of inspections required by § 63.1314 shall be submitted as specified in § 63.122 (h)(1) and (h)(2).

(ii) For owners or operators of affected sources required to request approval for a nominal control efficiency for use in calculating credits for an emissions average, the information specified in § 63.1332(i) shall be submitted as specified in paragraph (e)(7)(ii)(A) or (B) of this section, as appropriate.

(A) If use of a nominal control efficiency is part of the initial Emissions Averaging Plan described in paragraph (e)(4)(ii) of this section, the information shall be submitted with the Emissions Averaging Plan.

(B) If an owner or operator elects to use a nominal control efficiency after submittal of the initial Emissions Averaging Plan as described in paragraph (e)(4)(ii) of this section, the information shall be submitted at the discretion of the owner or operator.

(iii) When the conditions of §§ 63.1310(f)(3)(iii), 63.1310(f)(9), or 63.1310(f)(10)(iii) are met, reports of changes to the primary product for a TPPU or process unit as required by §§ 63.1310(f)(3)(iii), 63.1310(f)(9), or 63.1310(f)(10)(iii)(C), respectively, shall be submitted.

(iv) Owners or operators of TPPU or emission points (other than equipment leak components subject to § 63.1331) that are subject to § 63.1310(i)(1) or (i)(2) shall submit a report as specified in paragraphs (e)(7)(iv)(A) and (B) of this section.

(A) Reports shall include:

(*1*) A description of the process change or addition, as appropriate;

(*2*) The planned start-up date and the appropriate compliance date, according to § 63.1310(i)(1) or (2); and

(*3*) Identification of the group status of emission points (except equipment leak components subject to § 63.1331) specified in paragraphs (e)(7)(iv)(A)(*3*)(*i*) through (e)(7)(iv)(A)(*3*)(*iii*) of this section, as applicable.

(*i*) All the emission points in the added TPPU as described in § 63.1310(i)(1).

(*ii*) All the emission points in an affected source designated as a new affected source under § 63.1310(i)(2)(i).

(*iii*) All the added or created emission points as described in § 63.1310(i)(2)(ii) or (i)(2)(iii).

(*4*) If the owner or operator wishes to request approval to use alternative monitoring parameters, alternative continuous monitoring or recordkeeping, alternative controls, engineering assessment to estimate emissions from a batch emissions episode, or wishes to establish parameter monitoring levels according to the procedures contained in § 63.1334(c) or (d), a Precompliance Report shall be submitted in accordance with paragraph (e)(7)(iv)(B) of this section.

(B) Reports shall be submitted as specified in paragraphs (e)(7)(iv)(B)(*1*) through (e)(7)(iv)(B)(*3*) of this section, as appropriate.

(*1*) Owners or operators of an added TPPU subject to § 63.1310(i)(1) shall submit a report no later than 180 days prior to the compliance date for the TPPU.

(*2*) Owners or operators of an affected source designated as a new affected source under § 63.1310(i)(2)(i) shall submit a report no later than 180 days prior to the compliance date for the affected source.

(*3*) Owners or operators of any emission point (other than equipment leak components subject to § 63.1331) subject to § 63.1310(i)(2)(ii) or (i)(2)(iii) shall submit a report no later than 180 days prior to the compliance date for those emission points.

(8) *Operating permit application.* An owner or operator who submits an operating permit application instead of an Emissions Averaging Plan or a Precompliance Report shall include the following information with the operating permit application:

(i) The information specified in paragraph (e)(4) of this section for points included in an emissions average; and

(ii) The information specified in paragraph (e)(3) of this section, Precompliance Report, as applicable.

(f) *Alternative monitoring parameters.* The owner or operator who has been directed by any section of this subpart or any section of another subpart referenced by this subpart, that expressly referenced this paragraph (f) to set unique monitoring parameters, or who requests approval to monitor a different parameter than those specified in § 63.1314 for storage vessels, § 63.1315 or § 63.1317, as appropriate, for continuous process vents, § 63.1321 for batch process vents and aggregate batch vent streams, or § 63.1330 for process wastewater shall submit the information specified in paragraphs (f)(1) through (f)(3) of this section in the Precompliance Report, as required by paragraph (e)(3) of this section. The owner or operator shall retain for a period of 5 years each record required by paragraphs (f)(1) through (f)(3) of this section.

(1) The required information shall include a description of the parameter(s) to be monitored to ensure the recovery device, control device, or pollution prevention measure is operated in conformance with its design and achieves the specified emission limit, percent reduction, or nominal efficiency, and an explanation of the criteria used to select the parameter(s).

(2) The required information shall include a description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation, the schedule for this demonstration, and a statement that the owner or operator will establish a level for the monitored parameter as part of the Notification of Compliance Status report required in paragraph (e)(5) of this section, unless this information has already been included in the operating permit application.

(3) The required information shall include a description of the proposed monitoring, recordkeeping, and reporting system, to include the frequency and content of monitoring,

recordkeeping, and reporting. Further, the rationale for the proposed monitoring, recordkeeping, and reporting system shall be included if either condition in paragraph (f)(3)(i) or (f)(3)(ii) of this section is met:

(i) If monitoring and recordkeeping is not continuous; or

(ii) If reports of daily average values will not be included in Periodic Reports when the monitored parameter value is above the maximum level or below the minimum level as established in the operating permit or the Notification of Compliance Status.

(g) *Alternative continuous monitoring and recordkeeping.* An owner or operator choosing not to implement the provisions listed in § 63.1315 or § 63.1317, as appropriate, for continuous process vents, § 63.1321 for batch process vents and aggregate batch vent streams, or § 63.1330 for process wastewater, may instead request approval to use alternative continuous monitoring and recordkeeping provisions according to the procedures specified in paragraphs (g)(1) through (g)(4) of this section. Requests shall be submitted in the Precompliance Report as specified in paragraph (e)(3)(iv) of this section, if not already included in the operating permit application, and shall contain the information specified in paragraphs (g)(2)(ii) and (g)(3)(ii) of this section, as applicable.

(1) The provisions in § 63.8(f)(5)(i) shall govern the review and approval of requests.

(2) An owner or operator of an affected source that does not have an automated monitoring and recording system capable of measuring parameter values at least once every 15 minutes and that does not generate continuous records may request approval to use a nonautomated system with less frequent monitoring, in accordance with paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(i) The requested system shall include manual reading and recording of the value of the relevant operating parameter no less frequently than once per hour. Daily average (or batch cycle daily average) values shall be calculated from these hourly values and recorded.

(ii) The request shall contain:

(A) A description of the planned monitoring and recordkeeping system;

(B) Documentation that the affected source does not have an automated monitoring and recording system;

(C) Justification for requesting an alternative monitoring and recordkeeping system; and

(D) Demonstration to the Administrator's satisfaction that the proposed monitoring frequency is sufficient to represent control or recovery device operating conditions, considering typical variability of the specific process and control or recovery device operating parameter being monitored.

(3) 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, but records all values that meet set criteria for variation from previously recorded values, in accordance with paragraphs (g)(3)(i) and (g)(3)(ii) of this section.

(i) The requested system shall be designed to:

(A) Measure the operating parameter value at least once during every 15 minute period;

(B) Except for the monitoring of batch process vents, calculate hourly average values each hour during periods of operation;

(C) Record the date and time when monitors are turned off or on;

(D) Recognize unchanging data that may indicate the monitor is not functioning properly, alert the operator, and record the incident;

(E) Calculate daily average (or batch cycle daily average) values of the monitored operating parameter based on all measured data; and

(F) If the daily average is not an excursion, as defined in § 63.1334(f), the data for that operating day may be converted to hourly average values and the four or more individual records for each hour in the operating day may be discarded.

(ii) The request shall contain:

(A) A description of the monitoring system and data compression recording system, including the criteria used to determine which monitored values are recorded and retained;

(B) The method for calculating daily averages and batch cycle daily averages; and

(C) A demonstration that the system meets all criteria in paragraph (g)(3)(i) of this section.

(4) An owner or operator may request approval to use other alternative monitoring systems according to the procedures specified in § 63.8(f)(4).

(h) *Reduced recordkeeping program.* For any parameter with respect to any item of equipment, the owner or operator may implement the recordkeeping requirements specified in paragraph (h)(1) or (h)(2) of this section as alternatives to the continuous operating parameter monitoring and recordkeeping provisions that would otherwise apply under this subpart. The owner or operator shall retain for a period of 5 years each record required by paragraph (h)(1) or (h)(2) of this section, except as otherwise provided in paragraph (h)(1)(vi)(D) of this section.

(1) The owner or operator may retain only the daily average (or batch cycle daily average) value, and is not required to retain more frequent monitored operating parameter values, for a monitored parameter with respect to an item of equipment, if the requirements of paragraphs (h)(1)(i) through (h)(1)(vi) of this section are met. An owner or operator electing to comply with the requirements of paragraph (h)(1) of this section shall notify the Administrator in the Notification of Compliance Status as specified in paragraph (e)(5)(xi) of this section or, if the Notification of Compliance Status has already been submitted, in the Periodic Report immediately preceding implementation of the requirements of paragraph (h)(1) of this section as specified in paragraph (e)(6)(ix) of this section.

(i) The monitoring system is capable of detecting unrealistic or impossible data during periods of operation other than start-ups, shutdowns, or malfunctions (e.g., a temperature reading of !-200 EC on a boiler), and will alert the operator by alarm or other means. The owner or operator shall record the occurrence. All instances of the alarm or other alert in an operating day constitute a single occurrence.

(ii) The monitoring system generates, updated at least hourly throughout each operating day, a running average of the monitoring values that have been obtained during that operating day, and the capability to observe this running average is readily available to the Administrator on-site during the operating day. The owner or operator shall record the occurrence of any period meeting

the criteria in paragraphs (h)(1)(ii)(A) through (h)(1)(ii)(C) of this section. All instances in an operating day constitute a single occurrence.

(A) The running average is above the maximum or below the minimum established limits;

(B) The running average is based on at least six 1-hour average values; and

(C) The running average reflects a period of operation other than a start-up, shutdown, or malfunction.

(iii) The monitoring system is capable of detecting unchanging data during periods of operation other than start-ups, shutdowns, or malfunctions, except in circumstances where the presence of unchanging data is the expected operating condition based on past experience (e.g., pH in some scrubbers), and will alert the operator by alarm or other means. The owner or operator shall record the occurrence. All instances of the alarm or other alert in an operating day constitute a single occurrence.

(iv) The monitoring system will alert the owner or operator by an alarm or other means, if the running average parameter value calculated under paragraph (h)(1)(ii) of this section reaches a set point that is appropriately related to the established limit for the parameter that is being monitored.

(v) The owner or operator shall verify the proper functioning of the monitoring system, including its ability to comply with the requirements of paragraph (h)(1) of this section, at the times specified in paragraphs (h)(1)(v)(A) through (h)(1)(v)(C). The owner or operator shall document that the required verifications occurred.

(A) Upon initial installation.

(B) Annually after initial installation.

(C) After any change to the programming or equipment constituting the monitoring system, which might reasonably be expected to alter the monitoring system's ability to comply with the requirements of this section.

(vi) The owner or operator shall retain the records identified in paragraphs (h)(1)(vi)(A) through (h)(1)(vi)(D) of this section.

(A) Identification of each parameter, for each item of equipment, for which the owner or operator has elected to comply with the requirements of paragraph (h) of this section.

(B) A description of the applicable monitoring system(s), and of how compliance will be achieved with each requirement of paragraphs (h)(1)(i) through (h)(1)(v) of this section. The description shall identify the location and format (e.g., on-line storage, log entries) for each required record. If the description changes, the owner or operator shall retain both the current and the most recent superseded description, as provided in paragraph (a) of this section, except as provided in paragraph (h)(1)(vi)(D) of this section.

(C) A description, and the date, of any change to the monitoring system that would reasonably be expected to impair its ability to comply with the requirements of paragraph (h)(1) of this section.

(D) Owners and operators subject to paragraph (h)(1)(vi)(B) of this section shall retain the current description of the monitoring system as long as the description is current. The current description shall, at all times, be retained on-site or be accessible from a central location by computer or other means that provides access within 2 hours after a request. The owner or operator shall retain all

superseded descriptions for at least 5 years after the date of their creation. Superseded descriptions shall be retained on-site (or accessible from a central location by computer or other means that provides access within 2 hours after a request) for at least 6 months after their creation. Thereafter, superseded descriptions may be stored off-site.

(2) If an owner or operator has elected to implement the requirements of paragraph (h)(1) of this section for a monitored parameter with respect to an item of equipment and a period of 6 consecutive months has passed without an excursion as defined in paragraph (h)(2)(iv) of this section, the owner or operator is no longer required to record the daily average (or batch cycle daily average) value for any operating day when the daily average (or batch cycle daily average) value is less than the maximum or greater than the minimum established limit. With approval by the Administrator, monitoring data generated prior to the compliance date of this subpart shall be credited toward the period of 6 consecutive months, if the parameter limit and the monitoring accomplished during the period prior to the compliance date was required and/or approved by the Administrator.

(i) If the owner or operator elects not to retain the daily average (or batch cycle daily average) values, the owner or operator shall notify the Administrator in the next Periodic Report as specified in paragraph (e)(6)(x) of this section. The notification shall identify the parameter and unit of equipment.

(ii) If, on any operating day after the owner or operator has ceased recording daily average (or batch cycle daily average) values as provided in paragraph (h)(2) of this section, there is an excursion as defined in paragraph (h)(2)(iv) of this section, the owner or operator shall immediately resume retaining the daily average (or batch cycle daily average) value for each operating day and shall notify the Administrator in the next Periodic Report. The owner or operator shall continue to retain each daily average (or batch cycle daily average) value until another period of 6 consecutive months has passed without an excursion as defined in paragraph (h)(2)(iv) of this section.

(iii) The owner or operator shall retain the records specified in paragraphs (h)(1)(i) through (h)(1)(iii) of this section, for the duration specified in paragraph (h) of this section. For any calendar week, if compliance with paragraphs (h)(1)(i) through (h)(1)(iv) of this section does not result in retention of a record of at least one occurrence or measured parameter value, the owner or operator shall record and retain at least one parameter value during a period of operation other than a start-up, shutdown, or malfunction.

(iv) For purposes of paragraph (h) of this section, an excursion means that the daily average (or batch cycle daily average) value of monitoring data for a parameter is greater than the maximum, or less than the minimum established value, except as provided in paragraphs (h)(2)(iv)(A) and (h)(2)(iv)(B) of this section.

(A) The daily average (or batch cycle daily average) value during any start-up, shutdown, or malfunction shall not be considered an excursion for purposes of paragraph (h)(2) of this section, if the owner or operator follows the applicable provisions of the start-up, shutdown, and malfunction plan required by § 63.6(e)(3).

(B) An excused excursion, as described in § 63.1334(g), shall not be considered an excursion for purposes of paragraph (h)(2) of this section.

**Table 1 to Subpart JJJ of Part 63 -- Applicability of general provisions to subpart JJJ affected sources**

| Reference | Applies to Subpart JJJ | Explanation |
|---|---|---|
| § 63.1(a)(1)..... | Yes..... | § 63.1312 specifies definitions in addition to or that supersede definitions in § 63.2. |
| § 63.1(a)(2)..... | Yes. | |
| § 63.1(a)(3)..... | Yes..... | § 63.1311(g) through (l) and §63.160(b) identify those standards which may apply in addition to the requirements of subparts JJJ and H of this part, and specify how compliance shall be achieved. |
| § 63.1(a)(4)..... | Yes..... | Subpart JJJ (this table) specifies the applicability of each paragraph in subpart A to subpart JJJ. |
| § 63.1(a)(5)..... | No..... | [Reserved.]. |
| § 63.1(a)(6)-(8)..... | Yes. | |
| § 63.1(a)(9)..... | No..... | [Reserved.]. |
| § 63.1(a)(10)..... | Yes. | |
| § 63.1(a)(11)..... | Yes. | |
| § 63.1(a)(12)-(14).... | Yes. | |
| § 63.1(b)(1)..... | No..... | § 63.1310(a) contains specific applicability criteria. |
| § 63.1(b)(2)..... | Yes. | |
| § 63.1(b)(3)..... | No..... | § 63.1310(b) provides documentation requirements for TPPUs not considered affected sources. |
| § 63.1(c)(1)..... | Yes..... | Subpart JJJ (this table) specifies the applicability of each paragraph in subpart A to subpart JJJ. |
| § 63.1(c)(2)..... | No..... | Area sources are not subject to subpart JJJ. |
| § 63.1(c)(3)..... | No..... | [Reserved.]. |
| § 63.1(c)(4)..... | Yes. | |
| § 63.1(c)(5)..... | Yes..... | Except that affected sources are not required to submit notifications that are not required by subpart JJJ. |
| § 63.1(d)..... | No..... | [Reserved.]. |
| § 63.1(e)..... | Yes. | |

| | | |
|---|---|---|
| § 63.2 | Yes | § 63.1312 specifies those subpart A definitions that apply to subpart JJJ. |
| § 63.3 | Yes. | |
| § 63.4(a)(1)-(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 the terms ``source'' and ``stationary source'' should be interpreted as having the same meaning as ``affected source.'' |
| § 63.5(a)(2) | Yes. | |
| § 63.5(b)(1) | Yes | Except § 63.1310(i) defines when construction or reconstruction is subject to new source standards. |
| § 63.5(b)(2) | No | [Reserved.]. |
| § 63.5(b)(3) | Yes. | |
| § 63.5(b)(4) | Yes | Except that the Initial Notification and § 63.9(b) requirements do not apply. |
| § 63.5(b)(5) | Yes. | |
| § 63.5(b)(6) | Yes | Except that § 63.1310(i) defines when construction or reconstruction is subject to new source standards. |
| § 63.5(c) | No | [Reserved.] |
| § 63.5(d)(1)(i) | Yes | Except that the references to the Initial Notification and §63.9(b)(5) do not apply. |
| § 63.5(d)(1)(ii) | Yes | Except that § 63.5(d)(1)(ii)(H) does not apply. |
| § 63.5(d)(1)(iii) | No | § 63.1335(e)(5) and 63.1331(a)(4) specify Notification of Compliance Status requirements. |
| § 63.5(d)(2) | No. | |
| § 63.5(d)(3) | Yes | Except § 63.5(d)(3)(ii) does not apply, and equipment leaks subject to § 63.1331 are exempt. |
| § 63.5(d)(4) | Yes. | |

| | | |
|---|---|---|
| § 63.5(e)..... | Yes. | |
| § 63.5(f)(1)..... | Yes. | |
| § 63.5(f)(2)..... | Yes..... | Except that where § 63.9(b)(2) is referred to, the owner or operator need not comply. |
| § 63.6(a)..... | Yes. | |
| § 63.6(b)(1)..... | No..... | The dates specified in § 63.1311(b)apply, instead. |
| § 63.6(b)(2)..... | No. | |
| § 63.6(b)(3)..... | No. | |
| § 63.6(b)(4)..... | No. | |
| § 63.6(b)(5)..... | No. | |
| § 63.6(b)(6)..... | No..... | [Reserved.]. |
| § 63.6(b)(7)..... | No. | |
| § 63.6(c)(1)..... | Yes..... | Except that § 63.1311 specifies the compliance date. |
| § 63.6(c)(2)..... | No. | |
| § 63.6(c)(3)..... | No..... | [Reserved.]. |
| § 63.6(c)(4)..... | No..... | [Reserved.]. |
| § 63.6(c)(5)..... | Yes. | |
| § 63.6(d)..... | No..... | [Reserved.]. |
| § 63.6(e)..... | Yes..... | Except as otherwise specified for individual paragraphs. Does not apply to Group 2 emission points, unless they are included in an emissions average.[SU]a[/SU] |
| § 63.6(e)(1)(i)..... | No..... | This is addressed by §63.1310(j)(4). |
| § 63.6(e)(1)(ii)..... | Yes. | |
| § 63.6(e)(1)(iii)..... | Yes. | |
| § 63.6(e)(2)..... | Yes. | |
| § 63.6(e)(3)(i)..... | Yes..... | For equipment leaks (subject to § 63.1331), the start-up, shutdown, and malfunction plan requirement of §63.6(e)(3)(i) is limited to control devices and is optional for other equipment. The start-up, shutdown, malfunction plan may include written procedures that identify conditions thatjustify a delay of repair. |
| § 63.6(e)(3)(i)(A)..... | No..... | This is addressed by § 63.1310(j)(4). |

| | | |
|---|---|---|
| § 63.6(e)(3)(i)(B)..... | Yes. | |
| § 63.6(e)(3)(i)(C)..... | Yes. | |
| § 63.6(e)(3)(ii)..... | Yes. | |
| § 63.6(e)(3)(iii)..... | No..... | Recordkeeping and reporting are specified in § 63.1335(b)(1). |
| § 63.6(e)(3)(iv)..... | No..... | Recordkeeping and reporting are specified in § 63.1335(b)(1). |
| § 63.6(e)(3)(v)..... | Yes. | |
| § 63.6(e)(3)(vi)..... | Yes. | |
| § 63.6(e)(3)(vii)..... | Yes. | |
| § 63.6(e)(3)(vii)(A)..... | Yes. | |
| § 63.6(e)(3)(vii)(B)..... | Yes..... | Except the plan shall provide for operation in (B) compliance with § 63.1310(j)(4). |
| § 63.6(e)(3)(vii)(C)..... | Yes. | |
| § 63.6(e)(3)(viii)..... | Yes. | |
| § 63.6(f)(1)..... | Yes. | |
| § 63.6(f)(2)..... | Yes..... | Except § 63.7(c), as referred to in § 63.6(f)(2)(iii)(D), does not apply, and except that §63.6(f)(2)(ii) does not apply to equipment leaks subject to §63.1331. |
| § 63.6(f)(3)..... | Yes. | |
| § 63.6(g)..... | Yes. | |
| § 63.6(h)..... | No..... | Subpart JJJ does not require opacity and visible emission standards. |
| § 63.6(i)(1)..... | Yes. | |
| § 63.6(i)(2)..... | Yes. | |
| § 63.6(i)(3)..... | Yes. | |
| § 63.6(i)(4)(i)(A)..... | Yes. | |
| § 63.6(i)(4)(i)(B)..... | No..... | Dates are specified in § 63.1311(e) and § 63.1335(e)(3)(i). |
| § 63.6(i)(4)(ii)..... | No. | |
| § 63.6(i)(5)-(14)..... | Yes. | |
| § 63.6(i)(15)..... | No..... | [Reserved.]. |
| § 63.6(i)(16)..... | Yes. | |
| § 63.6(j)..... | Yes. | |
| § 63.7(a)(1)..... | Yes. | |
| § 63.7(a)(2)..... | No..... | § 63.1335(e)(5) specifies the submittal dates of performance test |

| | | |
|---|---|---|
| | | results for all emission points except equipment leaks; for equipment leaks,compliance demonstration results are reported in the Periodic Reports. |
| § 63.7(a)(3)..... | Yes. | |
| § 63.7(b)..... | No..... | § 63.1333(a)(4) specifies notification requirements. |
| § 63.7(c)..... | No. | |
| § 63.7(d)..... | Yes. | |
| § 63.7(e)(1)..... | Yes..... | Except that all performance tests shall be conducted at maximum representative operating conditions achievable at the time without disruption of operations or damage to equipment. |
| § 63.7(e)(2)..... | Yes. | |
| § 63.7(e)(3)..... | No..... | Subpart JJJ specifies requirements. |
| § 63.7(e)(4)..... | Yes. | |
| § 63.7(f)..... | Yes..... | Except that § 63.144(b)(5)(iii)(A) and (B) shall apply for process wastewater. Also, because a site specific test plan is not required, the notification deadline in §63.7(f)(2)(i) shall be 60 days prior to the performance test, and in §63.7(f)(3), approval or disapproval of the alternative test method shall not be tied to the site specific test plan. |
| § 63.7(g)..... | Yes..... | Except that the requirements in § 63.1335(e)(5) shall apply instead of references to the Notification of Compliance Status report in §63.9(h). In addition, equipment leaks subject to § 63.1331 are not required to conduct performance tests. |
| § 63.7(h)..... | Yes..... | Except § 63.7(h)(4)(ii) is not applicable, because the site-specific test plans in § 63.7(c)(2) are not required. |
| § 63.8(a)(1)..... | Yes. | |
| § 63.8(a)(2)..... | No. | |
| § 63.8(a)(3)..... | No..... | [Reserved] |

| | | |
|---|---|---|
| § 63.8(a)(4)..... | Yes. | |
| § 63.8(b)(1)..... | Yes. | |
| § 63.8(b)(2)..... | No..... | Subpart JJJ specifies locations to conduct monitoring. |
| § 63.8(b)(3)..... | Yes. | |
| § 63.8(c)(1)..... | Yes. | |
| § 63.8(c)(1)(i)..... | Yes. | |
| § 63.8(c)(1)(ii)..... | No..... | For all emission points except equipment leaks, comply with § 63.1335(b)(1)(i)(B); for equipment leaks, comply with §63.181(g)(2)(iii). |
| § 63.8(c)(1)(iii)..... | Yes. | |
| § 63.8(c)(2)..... | Yes. | |
| § 63.8(c)(3)..... | Yes. | |
| § 63.8(c)(4)..... | No..... | § 63.1334 specifies monitoring frequency; not applicable to equipment leaks because § 63.1331 does not require continuous monitoring systems. |
| § 63.8(c)(5)-(8)..... | No. | |
| § 63.8(d)..... | No. | |
| § 63.8(e)..... | No. | |
| § 63.8(f)(1)-(3)..... | Yes. | |
| § 63.8(f)(4)(i)..... | No..... | Time frame for submitting request is specified in § 63.1335(f) or (g); not applicable to equipment leaks because § 63.1331 (through reference to subpart H) specifies acceptable alternative methods. |
| § 63.8(f)(4)(ii)..... | No..... | Contents of requests are specified in § 63.1335(f) or (g). |
| § 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 JJJ does not require continuous emission monitors. |
| § 63.8(g)..... | No..... | Data reduction procedures specified in § 63.1335(d) and (h); not applicable to equipment leaks. |

| | | |
|---|---|---|
| § 63.9(a)..... | Yes. | |
| § 63.9(b)..... | No..... | Subpart JJJ does not require an initial notification. |
| § 63.9(c)..... | Yes. | |
| § 63.9(d)..... | Yes. | |
| § 63.9(e)..... | No..... | § 63.1333(a)(4) specifies notification deadline. |
| § 63.9(f)..... | No..... | Subpart JJJ does not require opacity and visible emission standards. |
| § 63.9(g)..... | No. | |
| § 63.9(h)..... | No..... | § 63.1335(e)(5) specifies Notification of Compliance Status requirements. |
| § 63.9(i)..... | Yes. | |
| § 63.9(j)..... | No. | |
| § 63.10(a)..... | Yes. | |
| § 63.10(b)(1)..... | No..... | § 63.1335(a) specifies record retention requirements. |
| § 63.10(b)(2)..... | No..... | Subpart JJJ specifies recordkeeping requirements. |
| § 63.10(b)(3)..... | No..... | § 63.1310(b) requires documentation of sources that are not affected sources. |
| § 63.10(c)..... | No..... | § 63.1335 specifies recordkeeping requirements. |
| § 63.10(d)(1)..... | Yes. | |
| § 63.10(d)(2)..... | No..... | § 63.1335(e) specifies performance test reporting requirements; not applicable to equipment leaks. |
| § 63.10(d)(3)..... | No..... | Subpart JJJ does not require opacity and visible emission standards. |
| § 63.10(d)(4)..... | Yes. | |
| § 63.10(d)(5)(i)..... | Yes..... | Except that reports required by § 63.10(d)(5)(i) may be submitted at the same time as Periodic Reports specified in § 63.1335(e)(6). The start-up, shutdown, and malfunction plan, and any records or reports of |

| | | |
|---|---|---|
| | | start-up,shutdown, and malfunction do not apply to Group 2 emission points unless they are included in an emissions average. |
| § 63.10(d)(5)(ii)..... | No. | |
| § 63.10(e)..... | No..... | § 63.1335 specifies reporting requirements. |
| § 63.10(f)..... | Yes. | |
| § 63.11..... | Yes..... | § 63.11(b) specifies requirements for flares used to comply with provisions of this subpart. §63.1333(e) contains the requirements to conduct compliance demonstrations forflares subject to this subpart. |
| § 63.12..... | Yes..... | Except that the authority of 63.1332(i) and the authority of §63.177 (for equipment leaks) shall not be delegated to States. |
| § 63.13-63.15..... | Yes. | |

[SU]a[/SU] The plan and any records or reports of start-up, shutdown, and malfunction do not apply to Group 2 emission points unless they are included in an emissions average.

**Table 2 to Subpart JJJ of Part 63 -- Group 1 Storage Vessels at Existing Affected Sources**

| Vessel capacity (cubic meters) | Vapor pressure a (kilopascals) |
|---|---|
| 75 ≤ capacity 151..... | ≥=13.1 |
| 151 ≤ capacity..... | ≥=5.2 |

a Maximum true vapor pressure of total organic HAP at storage temperature.

**Table 3 to Subpart JJJ of Part 63 -- Group 1 Storage Vessels at Existing Affected Sources Producing the Listed Thermoplastics**

| Thermoplastic | Chemical[a] | Vessel capacity (cubic meters) | Vapor pressure[b] (kilopascals) |
|---|---|---|---|
| ASA/AMSAN[c]..... | styrene/acrylonitrile.. | ≥ 3.78..... | ≥ 0.47 |
| | acrylonitrile..... | ≥ 75.7..... | ≥ 1.62 |
| Polystyrene continuous processes.. | all chemicals..... | ≤ 75.7..... ≥75.7. | ≥ 14.2 |

| | | | |
|---|---|---|---|
| | | | ≥ 1.9 |
| Nitrile[c] | acrylonitrile | ≥ 13.25 | ≥ 1.8 |

[a] Vessel capacity and vapor pressure criteria are specific to the listed chemical or to ``all chemicals,'' as indicated.
[b] Maximum true vapor pressure of total organic HAP at storage temperature.
[c] The applicability criteria in Table 2 of this subpart shall be used for chemicals not specifically listed in this table (i.e., Table 3).

**Table 3 to Subpart JJJ of Part 63 -- Group 1 Storage Vessels at Existing Affected Sources Producing the Listed Thermoplastics**

| Vessel capacity (cubic meters) | Vapor pressure [a] (kilopascals) |
|---|---|
| 38 ≤ capacity < 151 | ≥ 13.1 |
| 151 ≤ capacity | ≥ 0.7 |

a Maximum true vapor pressure of total organic HAP at storage temperature.

**Table 5 to Subpart JJJ of Part 63 -- Group 1 Storage Vessels at New Affected Sources Producing the Listed Thermoplastics**

| Thermoplastic | Chemical [a] | Vessel capacity (cubic meters) | Vapor pressure [b] (kilopascals) |
|---|---|---|---|
| ASA/AMSAN [c] | Styrene/ acrylonitrile mixture. | ≥ 3.78 | ≥ 0.47 |
| | Acrylonitrile | ≥ 75.7 | ≥ 1.62 |
| SAN, continuous [d] | All chemicals | ≥ 2,271 | ≥ 0.5 and < 0.7 |
| | | < 151 | ≥ 10 |
| | | ≥ 151 | ≥ 0.7 |
| Nitrile [c] | Acrylonitrile | ≥ 13.25 | ≥ 1.8 |
| Polystyrene, continuous processes | All chemicals | ≥19.6 and ≤45.4 | ≥ 7.48 |
| | | ≥ 45.4 and <109.8 | ≥ 0.61 |
| | | ≥ 109.8 | ≥0.53 |
| ABS, continuous mass | Styrene | ≥ 45.43 | > 0.078 |
| | All other chemicals | ≥ 38 and ≤ 45.43 | ≥ 13.1 |
| | | ≥ 45.43 | ≥ 0.53 |

[a] Vessel capacity and vapor pressure criteria are specific to the listed chemical, to ``all chemicals," or to ``all other chemicals," as indicated.

[b] Maximum true vapor pressure of total organic HAP at storage temperature.

[c] The applicability criteria in Table 4 of this subpart shall be used for chemicals not specifically listed in this table (i.e., Table 5).

[d] The control level for the first two sets of applicability criteria are specified in 63.1314 as 90% and 98%, respectively. The control level for the third set of applicability criteria is the HON control level of 95%.

**Table 6 to Subpart JJJ of Part 63 -- Known organic HAP emitted from the production of thermoplastic products**

| Thermoplastic product/sub category | Organic HAP/chemical name (CAS No.) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Acet-aldehyde (75-07-0) | Acrylo-nitrile (107-131) | 1,3 Buta-diene (106-99-0) | 1,4-Dioxane (123-91-1) | Ethylene Glycol (107-21-1) | Methanol (65-56-1) | Methyl metha-crylate (80-62-6) | Styrene (100-42-5) |
| ABS latex..... | | X | X | | | | | X |
| ABS using a batch emulsion process..... ..... | | X | X | | | | | X |
| ABS using a batch s uspension process..... ..... | | X | X | | | | | X |
| ABS using a continuous emulsion process... ..... | | X | X | | | | | X. |
| ABS using a continuous mass process..... ..... | | X | X | | | | | X |
| ASA/AMSAN..... | | X | | | | | | X |
| EPS..... | | | | | | | | X |
| MABS..... | | X | X | | | | | |
| MBS..... | | | X | | | | X | X |
| Nitrile resin..... | | X | | | | | | |
| PET using a batch dimethyl terephthalate process..... | X | | | | X | X | X | |
| PET using a batch terephthalic acid process..... | X | | | | X | X | | |
| PET using a continuous dimethyl terephthalate process... | X | | | | X | X | X | |
| PET using a continuous terephthalic acid process..... | X | | | | X | X | | |
| PET using a continuous t erephthalic acid high viscosity multiple end finisher process..... | X | | | | X | X | | |
| Polystyrene resin using a batch process... ..... ..... .. | | | | | | | | X |
| Polystyrene resin using a | | | | | | | | |

| | | |
|---|---|---|
| continuous process..... | | X |
| SAN using a batch process..... | X | X |
| SAN using a continuous process.... | X | X. |

CAS No. = Chemical Abstract Service Number.

ABS = Acrylonitrile butadiene styrene resin.

ASA/AMSAN = Acrylonitrile styrene resin/alpha methyl styrene acrylonitrile resin.

EPS = expandable polystyrene resin.

MABS = methyl methacrylate acrylonitrile butadiene styrene resin.

PET = poly(ethylene terephthalate) resin.

SAN = styrene acrylonitrile resin.

MBS = methyl methacrylate butadiene styrene resin.

**Table 7 to Subpart JJJ of Part 63 -- Group 1 batch process vents and aggregate batch vent streams -- monitoring, recordkeeping, and reporting requirements**

| Control device | Parameters to be monitored | Recordkeeping and reporting requirements for monitored parameters |
|---|---|---|
| Thermal incinerator..... | Firebox temperature [a] | 1. Continuous records as specified in § 63.1326(e)(1).[b]<br>2. Record and report the average firebox temperature measured during the performance test_NCS [c]<br>3. Record the batch cycle daily average firebox temperature as specified in § 63.1326(e)(2).<br>4. Report all batch cycle daily average temperatures that are below the minimum operating value established in the NCS or operating permit and all instances when monitoring data are not collected_PR. [d e] |
| Catalytic incinerator..... | Temperature upstream and downstream of the catalyst bed. | 1. Continuous records as specified in § 63.1326(e)(1). [b].<br>2. Record and report the average upstream and bed downstream temperatures and the average temperature difference across the catalyst bed measured during the performance test_NCS. [c]<br>3. Record the batch cycle daily average upstream temperature and temperature difference across catalyst bed as specified in § 63.1326(e)(2). |

| | | |
|---|---|---|
| | | 4. Report all batch cycle daily average upstream temperatures that are below the minimum upstream value established in the NCS or operating permit_PR. [d e]<br>5. Report all batch cycle daily average temperature differences across the catalyst bed that are below the minimum difference established in the NCS or operating permit_PR. [d,e]<br>6. Report all instances when monitoring data are not collected. [e] |
| Boiler or Process Heater..... design heat input capacity less then 44 megawatts and where the batch process vents or aggregate batch vent streams are not intro-duced with or used as the primary fuel the primary fuel. | Firebox temperature [a] | 1. Continuous records as specified in § 63.1326(e)(1). [b]<br>2. Record and report the average firebox temperature measured during the are not introduced with or used as performance test_NCS. [c]<br>3. Record the batch cycle daily average firebox temperature as specified in §63.1326(e)(2). [d]<br>4. Report all batch cycle daily average temperatures that are below the minimum operating value established in the NCS or operating permit and all instances when monitoring data are not collected_PR. [d e] |
| Flare..... | Presence of a flame at the pilot light | 1. Hourly records of whether the monitor was continuously operating during batch emission episodes, or portions thereof, selected for control and whether a flame was continuously present at the pilot light during said periods.<br>2. Record and report the presence of a flame at the pilot light over the full period of the compliance determination_NCS. [c]<br>3. Record the times and durations of all periods during batch emission episodes, or portions thereof, selected for control when all flames at the pilot light of a flare are absent or the monitor is not operating.<br>4. Report the times and durations of all periods during batch emission episodes, or portions thereof, selected for control when all flames at the pilot light of a flare are absent_PR. [d] |
| Scrubber for halogen- ... ated batch processes | a. pH of scrubber effluent, and | 1. Continuous records as specified in 63.1326(e)(1). b |

| | | |
|---|---|---|
| vents or aggregate batch vent streams (Note: Controlled by a combustion device other than a flare). | | 2. Record and report the average pH of the scrubber effluent measured during the performance test_NCS. [c]<br>3. Record the batch cycle daily average pH of the scrubber effluent as specified in § 63.1326(e)(2).<br>4. Report all batch cycle daily average pH values of the scrubber effluent that are below the minimum operating value established in the NCS or operating permit and all instances when monitoring data are not collected_PR. [d e] |
| | b. Scrubber liquid and gas flow rates. | 1. Records as specified in § 63.1326(e)(1). [b]<br>2. Record and report the scrubber liquid/ gas ratio averaged over the full period of the performance test_NCS. [c]<br>3. Record the batch cycle daily average scrubber liquid/gas ratio as specified in § 63.1326(e)(2).<br>4. Report all batch cycle daily average scrubber liquid/gas ratios that are below the minimum value established in the NCS or operating permit and all instances when monitoring data are not collected_PR. [d e] |
| Absorber [f]..... | a. Exit temperature of the absorbing liquid, and. | 1. Continuous records as specified in § 63.1326(e)(1). [b]<br>2. Record and report the average exit temperature of the absorbing liquid measured during the performance test_NCS [c]<br>3. Record the batch cycle daily average exit temperature of the absorbing liquid as specified in § 63.1326(e)(2) for each batch cycle.<br>4. Report all the batch cycle daily average exit temperatures of the absorbing liquid that are above the maximum operating value established in the NCS or operating permit and all instances when monitoring data are not collected_PR .[d e] |
| | b. Exit specific gravity for absorbing liquid. | 1. Continuous records as specified in the § 63.1326(e)(1). [b]<br>2. Record and report the average exit specific gravity measured during the performance test_NCS. [c] |

| | | |
|---|---|---|
| | | 3. Record the batch cycle daily average exit specific gravity as specified in § 63.1326(e)(2). |
| | | 4. Report all batch cycle daily average exit specific gravity values that are above the maximum operating value established in the NCS or operating permit and all instances when monitoring data are not collected_PR. [d e] |
| Condenser [f]..... | Exit (product side) temperature. | 1. Continuous records as specified in § 63.1326(e)(1). [b] |
| | | 2. Record and report the average exit temperature measured during the performance test_NCS.[c] |
| | | 3. Record the batch cycle daily average exit temperature as specified in § 63.1326(e)(2). |
| | | 4. Report all batch cycle daily average exit temperatures that are above the maximum operating value established in the NCS or operating permit and all instances when monitoring data are not collected_PR. [d e] |
| Carbon Adsorber [f]..... | a. Total regeneration steam flow or nitrogen flow, or pressure (gauge or absolute) during carbon bed regeneration cycles, and | 1. Record the total regeneration steam flow or nitrogen flow, or pressure for each carbon bed regeneration cycle |
| | | 2. Record and report the total regeneration steam flow or nitrogen flow, or pressure during carbon bed regeneration cycle measured during the performance test_NCS. [c] |
| | | 3. Report all carbon bed regeneration cycles when the total regeneration steam flow or nitrogen flow, or pressure is above the maximum value established in the NCS or operating permit_PR. [d e] |
| | b. Temperature of the carbon bed after regeneration and within 15 minutes of completing any cooling cycles | 1. Record the temperature of the carbon bed after each regeneration and within 15 minutes of completing any cooling cycles |
| | | 2. Record and report the temperature of the carbon bed after each regeneration and within 15 minutes of completing any cooling cycle(s) measured during the performance test_NCS. [c] |
| | | 3. Report all carbon bed regeneration cycles when the temperature of the carbon bed after regeneration, or within 15 minutes of completing any cooling cycle(s), is above the maximum value established in the NCS or operating permit_PR. [d e] |

| | | |
|---|---|---|
| All control devices... | a. Diversion to the atmosphere from the control device or. | 1. Hourly records of whether the flow indicator was operating during batch emission episodes, or portions thereof, selected for control and whether a diversion was detected at any time during said periods as specified in § 63.1326(e)(3).<br>2. Record and report the times of all periods during batch emission episodes, or portions thereof, selected for control when emissions are diverted through a bypass line or the flow indicator is not operating_PR. [d] |
| | b. Monthly inspection of sealed valves.. | 1. Records that monthly inspections were performed as specified in § 63.1326(e)(4)(i).<br>2. Record and report all monthly inspections that show the valves are in the diverting position or that a seal has been broken_PR.[d] |
| Absorber, condenser, and carbon Adsorber (as an alternative to the requirements previously presented in this table | Concentration level or reading indicated by an organic monitoring device at the outlet of the control device | 1. Continuous records as specified in § 63.1326(e)(1). [b]<br>2. record and report the average batch vent concentration level or reading measured during the performance test<br>3. Record the batch cycle daily average concentration level or reading as specified § 63.1326(e)(2).<br>4. Report all batch cycle daily average concentration levels or readings that are above the maximum value established in the NCS or operating permit and all instances when monitoring data are not collected_PR. [d e] |

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[a] Monitor may be installed in the firebox or in the ductwork immediately downstream of the firebox before any substantial heat exchange is encountered.

[b] ``Continuous records'' is defined in § 63.111.

[c] NCS = Notification of Compliance Status described in § 63.1335(e)(5).

[d] PR = Periodic Reports described in § 63.1335(e)(6).

[e] The periodic reports shall include the duration of periods when monitoring data are not collected as specified in § 63.1335(e)(6)(iii)(C).

[f] Alternatively, these devices may comply with the organic monitoring device provisions listed at the end of this table.

**Table 8 to Subpart JJJ of Part 63 -- Operating Parameters for Which Levels Are Required To Be Established for Continuous and Batch Process Vents and Aggregate Batch Vent Streams**

| Device | Parameters to be monitored | Established operating parameter(s) |
|---|---|---|
| Thermal incinerator..... | Firebox temperature..... | Minimum temperature. |
| Catalytic incinerator..... | Temperature upstream and downstream of the catalyst bed. | Minimum upstream temperature and minimum temperature difference across the catalyst bed. |
| Boiler or process heater... | Firebox temperature..... | Minimum temperature. |
| Scrubber for halogenated vents | pH of scrubber effluent; and and gas flow rates [63.1324(b)(4)(ii)]. | Minimum pH; and minimum liquid/ gas ratio |
| Absorber..... | Exit temperature of the absorbing liquid; and exit specific gravity of the absorbing liquid. | Maximum temperature; and maximum specific gravity. |
| Condenser..... | Exit temperature..... | Maximum temperature. |
| Carbon adsorber..... | Total regeneration steam flow or nitrogen flow, or pressure (gauge or absolute) a during carbon bed regeneration cycle; and temperature of the carbon bed after regeneration (and within 15 minutes of completing any cooling cycle(s)). | Maximum flow or pressure; and maximum temperature |
| Other devices (or as an alternative to the requirements previously presented in this table) b | HAP concentration level or reading at outlet of device | Maximum HAP concentration or reading |

a 25 to 50 mm (absolute) is a common pressure level obtained by pressure swing absorbers.

b Concentration is measured instead of an operating parameter.

**Table 9 to Subpart JJJ of Part 63 -- Routine reports required by this subpart**

| Reference | Description of report | Due date |
|---|---|---|
| § 63.1335(b) and subpart A. | Refer to Table 1 and subpart A. | Refer to subpart A. |
| § 63.1335(e)(3)..... | Precompliance Report | Existing affected sources_December 19, 2000. New affected sources_with application for approval of construction or reconstruction. |
| § 63.1335(e)(4)..... | Emissions Averaging plan | September 19, 2000. |
| § 63.1335(e)(4)(iv).... | Updates to Emissions averging plan | 120 days prior to making the change necessitating the update. |
| § 63.1335(e)(5)..... | Notification of Compliance status [b] | Within 150 days after the compliance date. |
| § 63.1335(e)(6)..... | Periodic Reports.... | Semiannually, no later than 60 days after the end of each 6-month period. See § 63.1335(e)(6)(i) for the due date for the first report. |
| § 63.1335(e)(6)(xi).... | Quarterly reports for emission averaging plan | No later than 60 days after the end of each quarter. First report is due with the Notification of Compliance Status. |
| § 63.1335(e)(6)(xii)... | Quarterly reports upon request Administrator | No later than 60 days after the end of each quarter. |
| § 63.1335(e)(7)(i)..... | Storage Vessels notification inspection | At least 30 days prior to the refilling of each storage vessel or the inspection of each storage vessel. |
| § 63.1335(e)(7)(ii).... | Requests for approval of a nominal control efficiency for use in emissions averaging | Initial submittal is due with the Emissions Averaging plan specified in 63.1335(e)(4)(ii); later submittals are made at the discretion of the owner or operator as specified in § 63.1335(e)(7)(ii) (B). |
| § 63.1335(e)(7)(iii)... | Notification of change in the primary product | 1. For notification under § 63.1310(f)(3)(ii)_notification submittal date at the discretion of the owner or operator. [c]<br>2. For notification under § 63.1310(f)(4)(ii)_w ithin 6 months of making the determination. |

[a] There may be two versions of this report due at different times; one for equipment subject to § 63.1331 and one for other emission points subject to this subpart.

[b] There will be two versions of this report due at different times; one for equipment subject to § 63.1331 and one for other emission points subject to this subpart.

[c] Note that the TPPU remains subject to this subpart until the notification under § 63.1310(f)(3)(i) is made.

## III. Requirements of 40 CFR Part 63, Subpart A

### [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).

*Pollution Prevention* means *source reduction* as defined under the Pollution Prevention Act (42 U.S.C. 13101–13109). The definition is as follows:

(1) *Source reduction* is any practice that:

(i) Reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal; and

(ii) Reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.

(2) The term *source reduction* includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.

(3) The term *source reduction* does not include any practice that alters the physical, chemical, or biological characteristics or the volume of a hazardous substance, pollutant, or contaminant through a process or activity which itself is not integral to and necessary for the production of a product or the providing of a service.

*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.

*Source at a Performance Track member facility* means a major or area source located at a facility which has been accepted by EPA for membership in the Performance Track Program (as described at *www.epa.gov/PerformanceTrack*) and is still a member of the Program. The Performance Track Program is a voluntary program that encourages continuous environmental improvement through the use of environmental management systems, local community outreach, and measurable results.

*Standard conditions* means a temperature of 293 K (68 EF) 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.

## [6.3] 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

EK = degree Kelvin

kg = kilogram

l = liter

m = meter

$m^3$ = cubic meter

mg = milligram = $10^{1-3}$ gram

ml = milliliter = $10^{1-3}$ liter

mm = millimeter = $10^{1-3}$ meter

Mg = megagram = $10^6$ gram = metric ton

MJ = megajoule

mol = mole

N = newton

ng = nanogram = $10^{1-9}$ gram

nm = nanometer = $10^{1-9}$ meter

Pa = pascal

s = second

V = volt

W = watt

ΩO = ohm

Fg = microgram = $10^{1-6}$ gram

Fl = microliter = $10^{1-6}$ liter

(b) *Other units of measure:*

Btu = British thermal unit

EC = 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

EF 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. $H_2O$ = 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

ER = 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 recordkeeping 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, recordkeeping, 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 recordkeeping 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'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) *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 $O_2$ 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] Recordkeeping 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 recordkeeping 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 recordkeeping 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 recordkeeping 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 recordkeeping, in order to minimize the recordkeeping 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 recordkeeping 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) *Recordkeeping 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 recordkeeping 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 recordkeeping efforts, the owner or operator may use the affected source's startup, shutdown, and malfunction plan or records kept to satisfy the recordkeeping 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, and except as provided in §63.16, 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]

(D) The affected source is complying with the Performance Track Provisions of §63.16, which allows less frequent reporting.

(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 recordkeeping 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 recordkeeping 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 recordkeeping or reporting requirements.* (1) Until a waiver of a recordkeeping 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) Recordkeeping 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 recordkeeping 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 recordkeeping or reporting is warranted.

(4) The Administrator will approve or deny a request for a waiver of recordkeeping 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 recordkeeping or reporting requirement granted under this paragraph may be conditioned on other recordkeeping 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 $V_{max}$, as determined by the following equation:

$V_{max}=(X_{H2}!-K_1)* K_2$

Where:

$V_{max}$=Maximum permitted velocity, m/sec.

$K_1$=Constant, 6.0 volume-percent hydrogen.

$K_2$=Constant, 3.9(m/sec)/volume-percent hydrogen.

$X_{H2}$=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:

$H_T$=Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 EC and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 EC.

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 EC.

$C_i$=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).

$H_i$=Net heat of combustion of sample component i, kcal/g-mole at 25 EC 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 $V_{max}$, as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, $V_{max}$, for flares complying with this paragraph shall be determined by the following equation:

$Log_{10}(V_{max})=(H_T+28.8)/31.7$

Where:

$V_{max}$=Maximum permitted velocity, m/sec.

28.8=Constant.

31.7=Constant.

$H_T$=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 $V_{max}$. The maximum permitted velocity, $V_{max}$, for air-assisted flares shall be determined by the following equation:

$V_{max}=8.71 = 0.708(H_T)$

Where:

$V_{max}$=Maximum permitted velocity, m/sec.

8.71=Constant.

0.708=Constant.

$H_T$=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 in the following list of EPA Regional Offices.

EPA Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont), Director, Air, Pesticides and Toxics Division, J.F.K. Federal Building, Boston, MA 02203–2211.

EPA Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Air and Waste Management Division, 26 Federal Plaza, New York, NY 10278.

EPA Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air Protection Division, 1650 Arch Street, Philadelphia, PA 19103.

EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee). Director, Air, Pesticides and Toxics Management Division, Atlanta Federal Center, 61 Forsyth Street, Atlanta, GA 30303–3104.

EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604–3507.

EPA Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas), Director, Air, Pesticides and Toxics, 1445 Ross Avenue, Dallas, TX 75202–2733.

EPA Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air, RCRA, and Toxics Division, U.S. Environmental Protection Agency, 901 N. 5th Street, Kansas City, KS 66101.

EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming), Director, Air and Toxics Division, 999 18th Street, 1 Denver Place, Suite 500, Denver, CO 80202–2405.

EPA Region IX (Arizona, California, Hawaii, Nevada, American Samoa, Guam), Director, Air and Toxics Division, 75 Hawthorne Street, San Francisco, CA 94105.

EPA Region X (Alaska, Idaho, Oregon, Washington), Director, Office of Air Quality, 1200 Sixth Avenue (OAQ–107), Seattle, WA 98101.

(b) All information required to be submitted to the Administrator 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. The owner or operator of an affected source may contact the appropriate EPA Regional Office for the mailing addresses for those States whose delegation requests have been approved.

(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 National Archives and Records Administration (NARA), 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. For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.*

(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 and §63.2406.

(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 §§63.3161(f)(1), 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 §§63.3161(f)(1), 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 (Reapproved 2003), "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products," IBR approved for §§63.3151(b), 63.3941(b)(4), 63.3941(c), 63.3951(c), 63.4141(b)(3), 63.4141(c), and 63.4551(c).

(27) ASTM D6522–00, 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, [1] IBR approved for §63.9307(c)(2), Table 4 of Subpart ZZZZ, and Table 5 to Subpart DDDDD of this part.

(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 §§63.3151(b) and 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.

(34) E145–94 (Reapproved 2001), Standard Specification for Gravity-Convection and Forced-Ventilation Ovens, IBR approved for §63.4581, Appendix A.

(35) ASTM D6784–02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), [1] IBR approved for Table 5 to Subpart DDDDD of this part.

(36) ASTM D5066–91 (Reapproved 2001), "Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints-Weight Basis," IBR approved for §63.3161(g).

(37) ASTM D5087–02, "Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)," IBR approved for §§63.3165(e) and 63.3176, appendix A.

(38) ASTM D6266–00a, "Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released from Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)," IBR approved for §63.3165(e).

(39) ASTM Method D388–99,. [1] Standard Classification of Coals by Rank, [1] IBR approved for §63.7575.

(40) ASTM D396–02a, Standard Specification for Fuel Oils, [1] IBR approved for §63.7575.

(41) ASTM D1835–03a, Standard Specification for Liquified Petroleum (LP) Gases, [1] IBR approved for §63.7575.

(42) ASTM D2013–01, Standard Practice for Preparing Coal Samples for Analysis, [1] IBR approved for Table 6 to Subpart DDDDD of this part.

(43) ASTM D2234–00, . [1] Standard Practice for Collection of a Gross Sample of Coal, [1] IBR approved for Table 6 to Subpart DDDDD of this part.

(44) ASTM D3173–02, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, [1] IBR approved for Table 6 to Subpart DDDDD of this part.

(45) ASTM D3683–94 (Reapproved 2000), Standard Test Method for Trace Elements in Coal and Coke Ash Absorption, [1] IBR approved for Table 6 to Subpart DDDDD of this part.

(46) ASTM D3684–01, Standard Test Method for Total Mercury in Coal by the Oxygen Bomb Combustion/Atomic Absorption Method, [1] IBR approved for Table 6 to Subpart DDDDD of this part.

(47) ASTM D5198–92 (Reapproved 2003), Standard Practice for Nitric Acid Digestion of Solid Waste, [1] IBR approved for Table 6 to Subpart DDDDD of this part.

(48) ASTM D5865–03a, Standard Test Method for Gross Calorific Value of Coal and Coke, [1] IBR approved for Table 6 to Subpart DDDDD of this part.

(49) ASTM D6323–98 (Reapproved 2003), Standard Guide for Laboratory Subsampling of Media Related to Waste Management Activities, [1] IBR approved for Table 6 to Subpart DDDDD of this part.

(50) ASTM E711–87 (Reapproved 1996), Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter, [1] IBR approved for Table 6 to Subpart DDDDD of this part.

(51) ASTM E776–87 (Reapproved 1996), Standard Test Method for Forms of Chlorine in Refuse-Derived Fuel, [1] IBR approved for Table 6 to Subpart DDDDD of this part.

(52) ASTM E871–82 (Reapproved 1998), Standard Method of Moisture Analysis of Particulate Wood Fuels, [1] IBR approved for Table 6 to Subpart DDDDD of this part.

(53) ASTM E885–88 (Reapproved 1996), Standard Test Methods for Analyses of Metals in Refuse-Derived Fuel by Atomic Absorption Spectroscopy, [1] IBR approved for Table 6 to Subpart DDDDD of this part 63.

(54) ASTM D6348–03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, incorporation by

reference (IBR) approved for Table 4 to Subpart DDDD of this part and Appendix B to subpart DDDD of this part as specified in the subpart.

(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 and §63.2406.

(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.*

(1) 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.

(2) NCASI Method CI/WP–98.01, Chilled Impinger Method For Use At Wood Products Mills to Measure Formaldehyde, Methanol, and Phenol, 1998, Methods Manual, NCASI, Research Triangle Park, NC, IBR approved for Table 4 to Subpart DDDD of this part.

(3) NCASI Method IM/CAN/WP–99.02, Impinger/Canister Source Sampling Method For Selected HAPs and Other Compounds at Wood Products Facilities, January 2004, Methods Manual, NCASI, Research Triangle Park, NC, IBR approved for Table 4 to Subpart DDDD of this part and Appendix B to subpart DDDD of this part.

(4) NCASI Method ISS/FP—A105.01, Impinger Source Sampling Method for Selected Aldehydes, Ketones, and Polar Compounds, December 2005, Methods Manual, NCASI, Research Triangle Park, NC, IBR approved for table 4 to subpart DDDD of this part and appendix B to subpart DDDD 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—$P_2O_5$ or $Ca_3(PO_4)_2$, 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-$P_2O_5$ or $Ca_3(PO_4)_2$, 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-$P_2O_5$ or $Ca_3(PO_4)_2$, 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-$P_2O_5$, 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-$P_2O_5$, 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-$P_2O_5$, 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) ANSI/ASME PTC 19.10–1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]," IBR approved for §§63.309(k)(1)(iii), 63.865(b), 63.3166(a)(3), 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 63.9323(a)(3) and Table 5 to Subpart DDDDD of this part.

(2) [Reserved]

(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 materials are available for purchase from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 605–6000 or (800) 553–6847; or for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512–1800:

(1) The following methods as published in the test methods compendium known as "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW–846, Third Edition. A suffix of "A" in the method number indicates revision one (the method has been revised once). A suffix of "B" in the method number indicates revision two (the method has been revised twice).

(i) Method 0023A, "Sampling Method for Polychlorinated Dibenzo-*p*-Dioxins and Polychlorinated Dibenzofuran Emissions from Stationary Sources," dated December 1996 and in Update III, IBR approved for §63.1208(b)(1) of Subpart EEE of this part.

(ii) Method 9071B, "n-Hexane Extractable Material (HEM) for Sludge, Sediment, and Solid Samples," dated April 1998 and in Update IIIA, IBR approved for §63.7824(e) of Subpart FFFFF of this part.

(iii) Method 9095A, "Paint Filter Liquids Test," dated December 1996 and in Update III, IBR approved for §§63.7700(b) and 63.7765 of Subpart EEEEE of this part.

(2) [Reserved]

### [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.

### [63.16] Performance Track Provisions.

(a) Notwithstanding any other requirements in this part, an affected source at any major source or any area source at a Performance Track member facility, which is subject to regular periodic reporting under any subpart of this part, may submit such periodic reports at an interval that is twice the length of the regular period specified in the applicable subparts; provided, that for sources subject to permits under 40 CFR part 70 or 71 no interval so calculated for any report of the results of any required monitoring may be less frequent than once in every six months.

(b) Notwithstanding any other requirements in this part, the modifications of reporting requirements in paragraph (c) of this section apply to any major source at a Performance Track member facility which is subject to requirements under any of the subparts of this part and which has:

(1) Reduced its total HAP emissions to less than 25 tons per year;

(2) Reduced its emissions of each individual HAP to less than 10 tons per year; and

(3) Reduced emissions of all HAPs covered by each MACT standard to at least the level required for full compliance with the applicable emission standard.

(c) For affected sources at any area source at a Performance Track member facility and which meet the requirements of paragraph (b)(3) of this section, or for affected sources at any major source that meet the requirements of paragraph (b) of this section:

(1) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using add-on control technology, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is meeting the emission standard by continuing to use that control technology. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).

(2) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using pollution prevention, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions to levels at or below those required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).

(3) If the emission standard to which the affected source is subject is based on pollution prevention, and the affected source complies by using pollution prevention and reduces emissions by an additional 50 percent or greater than required by the applicable emission standard, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions by an additional 50 percent or greater than required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).

(4) Notwithstanding the provisions of paragraphs (c)(1) through (3), of this section, for sources subject to permits under 40 CFR part 70 or 71, the results of any required monitoring and recordkeeping must be reported not less frequently than once in every six months.

IV. Should 40 CFR Part 63, Subparts A, EEE, and/or JJJ be revised during the term of this permit, the permittee shall comply with the applicable requirements of the most recent promulgation.

V. The following insignificant emissions units are located at this facility:

B006 - natural gas fired space heater;
B013 - rail car wash water(permit to install 07-257);
B014 - rail car/wash drying air heater (permit to install 07-288);
B015 - 9 mmBtu/hr natural gas fired boiler (permit to install 07-299);
B017 - diesel fire water pump(permit to install 07-308);
B018 - diesel fire pump(permit to install 07-308);
B019 - performance forms space heater (permit to install 07-333);
T006 - HCFC - 142b storage tank(permit to install 07-200);
T007 - isobutane storage tank(permit to install 07-317); and

T008 - HFC - 152a storage tank(permit to install 07-312).

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

I. 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:

B002 - boiler gas vent;
B004 - gas fired boiler - polystyrene;
B007 - 504 building heaters;
B009 - line 1 M/L space heater;
L001 - cold solvent cleaner;
L002 - cold solvent cleaner;
Z001 - waste water treatment;
Z005 - EtCl storage tank;
Z006 - CO2 storage tank;
Z007 - PF line 3 space heater;
Z008 - sill seal space heaters;
Z009 - propane storage tank;
Z010 - line 1 M/L ink storage vent;
Z011 - line 1 M/L ink printer;
Z012 - PF line 3 ink storage vent;
Z013 - PF line 3 ink printer;
Z014 - line 1 M/L pin mixer;
Z015 - line 1 M/L laminator;
Z016 - PF line 3 pin mixer;
Z017 - PF line 3 laminator;
Z019 - polystyrene railcar unloading;
Z020 - polystyrene storage silo vent;
Z021 - line 1 M/L day bin;
Z022 - PF line 3 day bin;
Z023 - PF line 3 add. trans;
Z024 - line 1 M/L add. trans;
Z026 - recycle storage silo vent;
Z027 - recycle storage silo vent;
Z028 - recycle storage;
Z029 - line 1 M/L recycle day;
Z030 - Pf line 3 recycle day;
Z033 - sill seal hot wire cutter;
Z034 - thermo mass punch;
Z035 - maintenance welding area;
Z036 - 534 building lab hood;

Z100 - add transfer blower;
Z101 - PF storage silo vent;
Z102 - PF line 1 day bin;
Z103 - line 1 recycle day bin;
Z105 - line 1 gear pump;
Z106 - line 1 pin mixer HO heater;
Z107 - line 1 pin mixer seal 01;
Z108 - line 1 trim cooler;
Z109 - PF line 2 day bin;
Z110 - line 2 recycle day bin;
Z112 - line 2 gear pump;
Z119 - recycle PF silo vents;
Z120 - boiler condenser tank;
Z122 - 507 warehouse heater - west;
Z123 - 507 warehouse heater - east;
Z124 - 507 curing warehouse heaters;
Z125 - 504 loading dock heaters;
Z126 - 500 building heaters;
Z127 - line 1 ink jet printer;
Z128 - line 1 ink jet storage tank;
Z129 - line 2 ink jet printer;
Z130 - line 2 ink jet storage tank;
Z132 - 509 building heaters;
Z133 - PF production storage building;
Z134 - 509 building heaters; and
Z135 - sill seal production storage.

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Dowtherm Boiler R-1 (B010)
Activity Description: Dowtherm Boiler R-1 (StyronTM)

## 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 |
|---|---|---|
| 9 mmBtu/hr per hour natural gas, no. 2 fuel oil, and byproduct fired boiler | OAC rule 3745-31-05(A)(3) (PTI 07-00420 as issued on 8/12/2004) | 0.18 lb/hr of particulate emissions<br><br>0.79 tpy of particulate emissions<br><br>2.73 lbs/hr of nitrogen oxides (NOx)<br><br>11.96 tpy of NOx<br><br>3.66 lbs/hr of sulfur dioxide (SO2)<br><br>16.05 tpy of SO2<br><br>0.047 lb/hr of volatile organic compounds (VOC)<br><br>0.21 tpy of VOC<br><br>0.9 lb/hr of carbon monoxide (CO)<br><br>3.94 tpy of CO |

| | |
|---|---|
| | CO emissions shall not exceed 100 ppmv on a dry basis corrected to 7% oxygen as a rolling, hourly average.<br><br>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07, 3745-17-10, 3745-18-06, 3745-21-08 and 3745-23-06.<br><br>See A.I.2.a and A.I.2.g below. |
| 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) | Particulate emissions shall not exceed 0.020 lb/mmBtu of actual heat input. |
| OAC rule 3745-18-06(B) | See A.I.2.b below. |
| OAC rule 3745-21-08(B) | See A.I.2.c below. |
| OAC rule 3745-23-06(B) | See A.I.2.d below. |
| 40 CFR Part 63, Subpart JJJ | See A.I.2.e and A.I.2.f below. |
| 40 CFR Part 63, Subpart EEE | See Part II, Specific Facility Terms and Conditions, section A.I. |
| 40 CFR Part 63, Subpart A | See Part II - Specific Facility Terms and Conditions, sections A.I. (Table 1) and A.III. |

## 2. Additional Terms and Conditions

2.a Compliance with 40 CFR Part 266, Subpart H and sections A.II.1 and A.II.2 below shall satisfy the best available technology requirement for this emissions unit specified in OAC rule 3745-31-05(A)(3).

2.b Fuel burning equipment which have heat input capacities equal to or less than 10 mmBtu/hr rated capacity are exempt from OAC rule 3745-18-06(D), (F), and (G).

2.c The permittee has satisfied 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 Permit to Install 07-420.

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 permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-420.

2.e This emissions unit is used as a control device for emissions units P002 (Polystyrene Polymerization Process - Train #1) and P010 (Polystyrene Polymerization Process - Train #2). Emissions units P002 and P010 are subject to the requirements of 40 CFR Part 63, Subpart JJJ. Because this emissions unit is used as a control device, it is also subject to the requirements of 40 CFR Part 63, Subpart JJJ (see Part II section A.II - Specific Facility Terms and Conditions).

Note: B010 and B020 are both subject to 40 CFR Part 266, Subpart H. 40 CFR Part 63, Subpart JJJ incorporates by reference certain provisions of 40 CFR Part 63, Subpart G, including 40 CFR 63.116(b), which exempts from performance testing requirements those control devices (such as B010 and B020) that are subject to and in compliance with 40 CFR Part 266, Subpart H.

2.f The permittee shall reduce emissions from emissions units P002 and P010 process vents, as defined in 40 CFR 63.1312, by 98 weight percent or to a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent. If the permittee elects to comply with the 20 ppmv standard, the concentration shall include a correction to 3 percent oxygen only when supplemental combustion air is used to combust the emissions. Compliance shall be based on either organic HAP or TOC.

2.g The company has demonstrated that sulfur content is negligible in byproduct fuel. Therefore, it is not necessary to develop monitoring, recordkeeping and/or reporting requirements to ensure compliance.

**Emissions Unit:** **Dowtherm Boiler R-1 (B010)**

## II. Operational Restrictions

1. No. 2 fuel oil shall be burned for emergency backup only when natural gas is not available.

2. No. 2 fuel oil shall have a sulfur content of less than or equal to 0.4 percent, by weight.

3. The amount of fuel burned in this emissions unit shall not exceed 50% / 50% mix of natural gas (or no. 2 fuel oil as emergency backup) and byproduct fuel. This 50% byproduct fuel equates to 228 lbs/hr of byproduct waste fuel.

4. The no. 2 fuel oil shall have a sulfur content and heat content that meets the allowable SO2 emission limitation of 3.66 lbs/hr.

5. If a boiler or heater is used to comply with the percent reduction requirement or concentration limit specified in section A.I.2.f, then the vent stream shall be introduced into the flame zone of such a device.

## III. Monitoring and/or Recordkeeping

1. The permittee shall maintain daily records of the quantity of each fuel burned in this emissions unit, including the ratio of the mix of byproduct waste fuel to natural gas (or no. 2 fuel oil as emergency backup).

2. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content, and the calculated sulfur dioxide emission rate (in lbs/hr at maximum capacity).

   The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emission unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

If the weekly checks show emissions that are representative of normal operation for 1 operating quarter, the required frequency of visible emission checks may be reduced to bi-weekly (once every two weeks, when the emissions unit is in operation). If a subsequent check by the permittee or an Ohio EPA inspector indicates emissions that are not representative of normal operation, the frequency of emission checks shall revert back to weekly until such time as there is 1 operating quarter of normal visible emissions.

4. The permittee shall maintain copies of the annual performance specification test report for the CO and O2 continuous emission monitoring systems (CEMs). The performance specification test shall be conducted in accordance with the requirements of 40 CFR Part 266, Appendix IX. These records shall be available to the agency upon request.

5. The monitoring and record keeping provisions of 40 CFR Part 63, Subpart JJJ for this emissions unit are specified in Part II, section A.II.

6. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install 07-00420, issued on 8/12/2004: A.III.1 through A.III.5. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the byproduct waste fuel usage limitation described in section A.II.3.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all times when a shipment of oil is received which exceeds the 0.4 percent, by weight, sulfur content limitation.

3. The permittee shall submit quarterly deviation reports that identify all exceedances of the 3.66 lbs/hr SO2 emission limitation based upon the calculations required in section A.III.2 for the no. 2 fuel oil.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

5. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. The reporting provision of 40 CFR Part 63, Subpart JJJ for this emissions unit are specified in Part II, sections A.II.

7. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install 07-00420, issued on 8/12/2004: A.IV.1 through A.IV.6. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## 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:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures required in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.047 lb/hr of VOC

Applicable Compliance Method:

Compliance shall be demonstrated based upon the stack testing requirements specified in section A.V.2.

1.c Emission Limitation:

0.21 tpy of VOC

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

**Emissions Unit:** **Dowtherm Boiler R-1 (B010)**

1.d Emission Limitation:

2.73 lbs/hr of NOx

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the NOx emission factor in lb/mmscf of fuel fired, by the maximum quantity of fuel burned per hour, in mmscf. The NOx emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7.

1.e Emission Limitation:

11.96 tpy of NOx

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

1.f Emission Limitation:

0.18 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the particulate emission factor in lb/mmscf of fuel fired, by the maximum quantity of fuel burned per hour, in mmscf. The particulate emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

1.g Emission Limitation:

0.79 tpy of particulate emissions

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

1.h Emission Limitation:

0.9 lb/hr of carbon monoxide (CO)

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the CO emission factor in lb/mmscf of fuel fired, by the maximum quantity of fuel burned per hour, in mmscf. The CO emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

1.i Emission Limitation:

3.94 tpy of CO

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

1.j Emission limitation:

CO emissions shall not exceed 100 ppmv on a dry basis corrected to 7% oxygen as a rolling, hourly average

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 266, Subpart H.

1.k Emission Limitation:

3.66 lbs/hr of SO2

Applicable Compliance Method:

Compliance may be demonstrated based upon the records required in sections A.III.1 through A.III.3 and by multiplying the SO2 emission factor in lb/1000 gallon of fuel fired, by the maximum quantity of fuel burned per hour, in gallons. The SO2 emission factor shall be obtained from AP-42, Volume 1, 5th Edition, Chapter 1, Section 1.3, Table 1.3-1, dated September, 1998 and the sulfur content of the fuel.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6.

1.l Emission Limitation:

16.05 tpy of SO2

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

1.m Emission Limitation:

reduce emissions by 98 weight percent or to a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent

Applicable Compliance Method:

Compliance shall be demonstrated based upon compliance with 40 CFR Part 266, Subpart H.

2. B010 and B020 are identical emissions units. For compliance demonstration purposes, 40 CFR 266.103(c)(3) provides that "the owner or operator may seek approval on a case-by-case basis to use compliance test data from one unit in lieu of testing a similar onsite unit." The permittee has obtained such approval for B010 and B020 from USEPA Region V. Consequently, the permittee is only required to conduct, or have conducted, emission testing for one of the two emissions units in accordance with the following requirements:

   a. The emission testing shall be conducted in accordance with the applicable test methods and testing frequency requirements of 40 CFR Part 266 Subpart H.

   b. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity and using the maximum allowed byproduct fuel burning rate, unless otherwise specified or approved by the Portsmouth local air agency.

3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth 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 Portsmouth local air agency's refusal to accept the results of the emission test(s).

   Personnel from the Portsmouth 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 Portsmouth 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 Portsmouth local air agency.

4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00420, issued on 8/12/2004: A.V.1 through A.V.3. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## VI. Miscellaneous Requirements

None

**Emissions Unit:** **Dowtherm Boiler R-1 (B010)**

## 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 Recordkeeping

None

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Dowtherm Boiler R-3 (B020)
Activity Description: Dowtherm Boiler R-3 (StyronTM)

## 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 |
|---|---|---|
| 9 mmBtu/hr per hour natural gas, no. 2 fuel oil, and byproduct fired boiler | OAC rule 3745-31-05(A)(3) (PTI 07-00420 as issued on 8/12/2004) | 0.18 lb/hr of particulate emissions<br><br>0.79 tpy of particulate emissions<br><br>2.73 lbs/hr of nitrogen oxides (NOx)<br><br>11.96 tpy of NOx<br><br>3.66 lbs/hr of sulfur dioxide (SO2)<br><br>16.05 tpy of SO2<br><br>0.047 lb/hr of volatile organic compounds (VOC)<br><br>0.21 tpy of VOC<br><br>0.9 lb/hr of carbon monoxide (CO)<br><br>3.94 tpy of CO<br><br>CO emissions shall not exceed 100 ppmv on a dry basis corrected |

| | |
|---|---|
| | to 7% oxygen as a rolling, hourly average.<br><br>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07, 3745-17-10, 3745-18-06, 3745-21-08 and 3745-23-06.<br><br>See A.I.2.a and A.I.2.g below. |
| 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) | Particulate emissions shall not exceed 0.020 lb/mmBtu of actual heat input. |
| OAC rule 3745-18-06(B) | See A.I.2.b below. |
| OAC rule 3745-21-08(B) | See A.I.2.c below. |
| OAC rule 3745-23-06(B) | See A.I.2.d below. |
| 40 CFR Part 63, Subpart JJJ | See A.I.2.e and A.I.2.f below. |
| 40 CFR Part 63, Subpart EEE | See Part II - Specific Facility Terms and Conditions, section A.I. |
| 40 CFR Part 63, Subpart A | See Part II - Specific Facility Terms and Conditions, sections A.I. (Table 1) and A.III. |

## 2. Additional Terms and Conditions

2.a Compliance with 40 CFR Part 266, Subpart H and sections A.II.1 and A.II.2 below shall satisfy the best available technology requirement for this emissions unit specified in OAC rule 3745-31-05(A)(3).

2.b Fuel burning equipment which have heat input capacities equal to or less than 10 mmBtu/hr rated capacity are exempt from OAC rule 3745-18-06(D), (F), and (G).

2.c The permittee has satisfied 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 Permit to Install 07-420.

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 permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-420.

2.e This emissions unit is used as a control device for emissions units P002 (Polystyrene Polymerization Process - Train #1) and P010 (Polystyrene Polymerization Process - Train #2). Emissions units P002 and P010 are subject to the requirements of 40 CFR Part 63, Subpart JJJ. Because this emissions unit is used as a control device, it is also subject to the requirements of 40 CFR Part 63, Subpart JJJ (see Part II section A.II. - Specific Facility Terms and Conditions).

Note: B010 and B020 are both subject to 40 CFR Part 266, Subpart H. 40 CFR Part 63, Subpart JJJ incorporates by reference certain provisions of 40 CFR Part 63, Subpart G, including 40 CFR 63.116(b), which exempts from performance testing requirements those control devices (such as B010 and B020) that are subject to and in compliance with 40 CFR Part 266, Subpart H.

2.f The permittee shall reduce emissions from emissions units P002 and P010 process vents, as defined in 40 CFR 63.1312, by 98 weight percent or to a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent. If the permittee elects to comply with the 20 ppmv standard, the concentration shall include a correction to 3 percent oxygen only when supplemental combustion air is used to combust the emissions. Compliance shall be based on either organic HAP or TOC.

2.g The company has demonstrated that sulfur content is negligible in byproduct fuel. Therefore, it is not necessary to develop monitoring, recordkeeping and/or reporting requirements to ensure compliance.

**Emissions Unit:** **Dowtherm Boiler R-3 (B020)**

## II. Operational Restrictions

1. No. 2 fuel oil shall be burned for emergency backup only when natural gas is not available.

2. No. 2 fuel oil shall have a sulfur content of less than or equal to 0.4 percent, by weight.

3. The amount of fuel burned in this emissions unit shall not exceed 50% / 50% mix of natural gas (or no. 2 fuel oil as emergency backup) and byproduct fuel. This 50% byproduct fuel equates to 228 lbs/hr of byproduct waste fuel.

4. The no. 2 fuel oil shall have a sulfur content and heat content that meets the allowable SO2 emission limitation of 3.66 lbs/hr.

5. If a boiler or heater is used to comply with the percent reduction requirement or concentration limit specified in section A.I.2.f, then the vent stream shall be introduced into the flame zone of such a device.

## III. Monitoring and/or Recordkeeping

1. The permittee shall maintain daily records of the quantity of each fuel burned in this emissions unit, including the ratio of the mix of byproduct waste fuel to natural gas (or no. 2 fuel oil as emergency backup).

2. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content, and the calculated sulfur dioxide emission rate (in lbs/hr at maximum capacity).

   The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emission unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

If the weekly checks show emissions that are representative of normal operation for 1 operating quarter, the required frequency of visible emission checks may be reduced to bi-weekly (once every two weeks, when the emissions unit is in operation). If a subsequent check by the permittee or an Ohio EPA inspector indicates emissions that are not representative of normal operation, the frequency of emission checks shall revert to weekly until such time as there is 1 operating quarter of normal visible emissions.

4. The permittee shall maintain copies of the annual performance specification test report for the CO and O2 continuous emission monitoring systems (CEMs). The performance specification test shall be conducted in accordance with the requirements of 40 CFR Part 266, Appendix IX. These records shall be available to the agency upon request.

5. The monitoring and record keeping provisions of 40 CFR Part 63, Subpart JJJ for this emissions unit are specified in Part II, section A.II.

6. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install 07-00420, issued on 8/12/2004: A.III.1 through A.III.5. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the byproduct waste fuel usage limitation described in section A.II.3.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all times when a shipment of oil is received which exceeds the 0.4 percent, by weight, sulfur content limitation.

3. The permittee shall submit quarterly deviation reports that identify all exceedances of the 3.66 lbs/hr SO2 emission limitation based upon the calculations required in sections A.III.2 for the fuel oil.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

5. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. The reporting provisions of 40 CFR Part 63, Subpart JJJ for this emissions unit are specified in Part II, sections A.II.

7. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install 07-00420, issued on 8/12/2004: A.IV.1 through A.IV.6. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## 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:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures required in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.047 lb/hr of VOC

Applicable Compliance Method:

Compliance shall be demonstrated based upon the stack testing requirements specified in section A.V.2.

1.c Emission Limitation:

0.21 tpy of VOC

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

**Emissions Unit:** **Dowtherm Boiler R-3 (B020)**

1.d Emission Limitation:

2.73 lbs/hr of NOx

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the NOx emission factor in lb/mmscf of fuel fired, by the maximum quantity of fuel burned per hour, in mmscf. The NOx emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7.

1.e Emission Limitation:

11.96 tpy of NOx

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

1.f Emission Limitation:

0.18 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the particulate emission factor in lb/mmscf of fuel fired, by the maximum quantity of fuel burned per hour, in mmscf. The particulate emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

1.g Emission Limitation:

0.79 tpy of particulate emissions

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

1.h Emission Limitation:

0.9 lb/hr of carbon monoxide (CO)

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the CO emission factor in lb/mmscf of fuel fired, by the maximum quantity of fuel burned per hour, in mmscf. The CO emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

1.i Emission Limitation:

3.94 tpy of CO

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

1.j Emission limitation:

CO emissions shall not exceed 100 ppmv on a dry basis corrected to 7% oxygen as a rolling, hourly average

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 266, Subpart H.

1.k Emission Limitation:

3.66 lbs/hr of SO2

Applicable Compliance Method:

Compliance may be demonstrated based upon the records required in sections A.III.1 through A.III.3 and by multiplying the SO2 emission factor in lb/1000 gallon of fuel fired, by the maximum quantity of fuel burned per hour, in gallons. The SO2 emission factor shall be obtained from AP-42, Volume 1, 5th Edition, Chapter 1, Section 1.3, Table 1.3-1, dated September, 1998 and the sulfur content of the fuel.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6.

1.l Emission Limitation:

16.05 tpy of SO2

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

1.m Emission Limitation:

reduce emissions by 98 weight percent or to a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent

Applicable Compliance Method:

Compliance shall be demonstrated based upon compliance with 40 CFR Part 266, Subpart H.

2. B010 and B020 are identical emissions units. For compliance demonstration purposes, 40 CFR 266.103(c)(3) provides that "the owner or operator may seek approval on a case-by-case basis to use compliance test data from one unit in lieu of testing a similar onsite unit." The permittee has obtained such approval for B010 and B020 from USEPA Region V. Consequently, the permittee is only required to conduct, or have conducted, emission testing for one of the two emissions units in accordance with the following requirements:

a. The emission testing shall be conducted in accordance with the applicable test methods and testing frequency requirements of 40 CFR Part 266, Subpart H.

b. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity and using the maximum allowed byproduct fuel burning rate, unless otherwise specified or approved by the Portsmouth local air agency.

3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth 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 Portsmouth local air agency's refusal to accept the results of the emission test(s).

   Personnel from the Portsmouth 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 Portsmouth 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 Portsmouth local air agency.

4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00420, issued on 8/12/2004: A.V.1 through A.V.3. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## VI. Miscellaneous Requirements

None

**Emissions Unit:** **Dowtherm Boiler R-3 (B020)**

## 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 Recordkeeping

None

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Fugitive Dust-Roads (F001)
Activity Description: Fugitive Dust - Plant Roadways & Parking Areas

### 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 |
|---|---|---|
| plant roadways and parking areas | OAC rule 3745-17-08(B) | See A.I.2.a below. |
| | OAC rule 3745-17-07(B) | See A.I.2.b below. |

**2. Additional Terms and Conditions**

2.a Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to this emissions unit.

2.b Pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

### II. Operational Restrictions

None

### III. Monitoring and/or Recordkeeping

None

**Emissions Unit:** **Fugitive Dust-Roads (F001)**

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

**Emissions Unit:** **Fugitive Dust-Roads (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 Recordkeeping

None

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Dow Polystyrene Polymerization Process - Train #1 (P002)
Activity Description: Process which produces Polystyrene (StyronTM)

## 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 |
|---|---|---|
| polystyrene process train #1 vented to Dowtherm boilers R-1 and R-3 | OAC rule 3745-31-05(A)(3) (PTI 07-00479) | 0.06 lb/hr of volatile organic compounds (VOC)<br><br>0.26 tpy of VOC<br><br>See A.I.2.d and A.I.2.e below. |
| | OAC rule 3745-21-09(DD) | See A.I.2.c below. |
| | OAC rule 3745-21-09(CC) | See A.I.2.a below. |
| | 40 CFR Part 63, Subpart JJJ | Polystyrene Resin Thermoplastic Product Process Unit<br><br>See A.I.2.b below.<br><br>Additional requirements are specified in Part II, section A.II. - Specific Facility Terms and Conditions. |
| | 40 CFR Part 63, Subpart A | See Part II - Specific Facility Terms and Conditions, sections A.II. (Table 1) and A.III. |

## 2. Additional Terms and Conditions

2.a The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.b The permittee of an affected emissions unit producing polystyrene resin using a continuous process shall comply with the requirements of this rule by reducing emissions from all process vents, as defined in 40 CFR 63.1312, by 98 weight percent or to a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent. If the permittee elects to comply with the 20 ppmv standard, the concentration shall include a correction to 3 percent oxygen only when supplemental combustion air is used to combust the emissions. Compliance shall be based on either organic HAP or TOC.

2.c The leak detection and repair (LDAR) program specified by this applicable rule is equivalent to or less stringent than the LDAR program specified by 40 CFR Part 63, Subpart JJJ.

2.d Compliance with 40 CFR Part 63, Subpart JJJ shall satisfy the best available technology (BAT) requirement for this emissions unit.

2.e Process emissions from this emissions unit shall be vented to the Dowtherm boilers R-1 (B010) and R-3 (B020). There shall be no increase in the allowable emissions from the Dowtherm boilers. The Dowtherm boilers R-1 and R-3 shall also comply with the applicable requirements of 40 CFR Part 266, Subpart H.

## II. Operational Restrictions

1. If a boiler or heater is used to comply with the percent reduction requirement or concentration limit specified in A.I.2.b, then the vent stream shall be introduced into the flame zone of such a device.

## III. Monitoring and/or Recordkeeping

1. The monitoring and record keeping provisions of the LDAR program for this emissions unit are specified in Part II, sections A.II..

2. The permittee shall maintain daily records, in pounds, of the amount of each raw material used in this process unit and the hourly VOC emissions from this emissions unit.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install 07-00479, issued on 5/3/00: A.III.1 and A.III.2. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so

that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

## IV. Reporting Requirements

1. The reporting provisions of the LDAR program for this emissions unit are specified in Part II, sections A.II..

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install 07-00479, issued on 5/3/00: A.IV.1. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.06 lb/hr of VOC

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the emissions tracking program, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This program has been defined by The Dow Chemical Corporation as the "ESOP-25 Styron-Magnum Air Emission Calculator" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 of this permit and shall be based on emission factors from Compilation of Air Pollutant Emission Factors AP-42, Fifth Edition, Volume I, Chapters 6 and 7 and/or other appropriate factors to calculate emissions rates from this emissions unit. This program shall be available to an OEPA representative at any time during normal business hours.

1.b Emission Limitation:

0.26 tpy of VOC

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8760 hours per year, and then dividing by 2000 lbs/ton.

1.c Emission Limitation:

reduce emissions by 98 weight percent or to a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent

Applicable Compliance Method:

Compliance shall be demonstrated based upon compliance with 40 CFR Part 266, Subpart H for the Dowtherm boilers R-1 and R-3 (B010 and B020).

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install 07-00479, issued on 5/3/00: A.V.1. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## 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 Recordkeeping

None

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Plant - Line #1 (P003)
Activity Description: Performance Foams Plant - Line #1

## 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 |
|---|---|---|
| performance foams plant- line #1 controlled by a thermal oxidizer | OAC rule 3745-31-05(A)(3) (PTI 07-00494) | Controlled volatile organic compound (VOC) emissions from this emissions unit shall not exceed 4.4 lbs/hr.<br><br>Allowable emissions from the thermal oxidizer (for the emissions units specified in section A.I.2.b) shall not exceed the following:<br><br>2.75 lbs/hr of particulate emissions<br>12 tpy of particulate emissions<br><br>0.12 lb/hr of sulfur dioxide (SO2)<br>0.53 tpy of SO2<br><br>6.0 lbs/hr of nitrogen oxides (NOx)<br>26.3 tpy of NOx<br><br>40.2 lbs/hr of volatile organic compounds (VOC)<br><br>The requirements of this rule also include compliance with the |

| | |
|---|---|
| | requirements of OAC rule 3745-31-05(C).<br><br>See A.I.2.a through A.I.2.e and A.I.2.g below. |
| OAC rule 3745-31-05(C) SYNTHETIC MINOR TO AVOID PSD (THIS LIMITATION UPON P003 AND P022 WAS PART OF AN EARLIER PTI TO AVOID PSD) | 15.9 tons of VOC per rolling, 365-day period for emissions units P003 and P022, combined |
| OAC rule 3745-17-07(A) | See A.I.2.f below. |
| OAC rule 3745-17-11(B) | See A.I.2.f below. |

## 2. Additional Terms and Conditions

2.a VOC emissions from this emissions unit shall not exceed 15.9 tpy, based upon a rolling, 365-day summation of the daily emissions.

2.b The following emissions units are vented to the regenerative thermal oxidizer (RTO): P003 (performance foams line #1), P022 (performance foams line #2), P023 (performance foams recycle line), P014 (performance foams line #3), P017 (performance foams primary curing warehouse #1) and P018 (performance foams primary curing warehouse #2).

2.c VOC emissions vented to the RTO shall be controlled by at least 98% at maximum operating capacity.

2.d The shutdown of the RTO shall be accompanied by the shutdown of all the performance foam process units which are vented to it.

2.e There shall be no visible emissions in excess of 10% opacity, as a 6-minute average, during any 60-minute observation period.

2.f The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.g The 4.4 lbs/hr VOC limitation for this emissions unit and the 40.2 lbs/hr VOC limitation for emissions units P003, P014, P017, P018, P022, and P023, combined, were established to reflect the hourly potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

## II. Operational Restrictions

1. Combined blowing agent (VOC) usage for emissions unit P003 and P022 shall not exceed 2540 tpy, based upon a rolling, 365-day summation of the daily usages.

2. A minimum temperature of 1425 degrees Fahrenheit shall be maintained in the combustion zone of the thermal oxidizer.

3. The thermal oxidizer, including any associated equipment and piping, shall be designed, operated, and maintained so as to prevent the emissions of objectionable odors.

## III. Monitoring and/or Recordkeeping

1. The facility shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emission unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

   The permittee shall collect and record the following information for each day:

   a. all 3-hr blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was less than 1425 degrees Fahrenheit; and

   b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit is in operation.

2. The permittee shall maintain daily records of the following information for P003 and P022:

   a. the daily usage of blowing agent (VOC), in lbs;

   b. the total combined rolling, 365-day total of the tons of blowing agent (VOC) employed;

   c. the product type groups produced;

   d. the product type die loss factors;

   e. the hole punching factor;

   f. the daily VOC vent emissions;

   g. the total combined VOC (blowing agent) emissions, in tons, calculated as a rolling, 365-day summation;

h. the date and time of each thermal oxidizer shutdown; and

i. the duration of time for each thermal oxidizer shutdown.

The daily vent emissions for emissions units P003 and P022 are calculated by multiplying the amount of blowing agent released in each process by the destruction efficiency of the control device. The blowing agent released in the process is calculated based on the quantity of product produced on each line (P003 and P022) per day and the amount of blowing agent on each product.

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emission from the RTO stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emissions incident; and

   e. any corrective actions taken to eliminate the visible emissions.

   If the weekly checks show emissions that are representative of normal operation for 1 operating quarter, the required frequency of visible emission checks may be reduced to bi-weekly (once every two weeks, when the emissions unit is in operation). If a subsequent check by the permittee or an Ohio EPA inspector indicates emissions that are not representative of normal operation, the frequency of emission checks shall revert back to weekly until such time as there is 1 operating quarter of normal visible emissions.

4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 5/30/2002: A.III.1 through A.III.3. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day combined emission and usage limitations for VOC (blowing agent) for P003 and P022 .

2. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time during which the thermal oxidizer combustion zone temperature does not comply with the temperature limitation specified in section A.III.1. Each report shall be submitted within 30 days after the deviation occurs.

3. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.

5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 5/30/2002: A.IV.1 through A.IV.4. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:

2.75 lbs/hr of particulates from the thermal oxidizer
0.12 lb/hr of SO2 from the thermal oxidizer
6.0 lbs/hr of NOx from the thermal oxidizer

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the following Test Methods: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for SO2, Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A; for NOx, Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A.

1.b Emission Limitations:

40.2 lbs/hr of VOC from the thermal oxidizer

VOC emissions vented to the thermal oxidizer shall be controlled by at least 98% at maximum operating capacity.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the Test Methods as described in section A.V.2.

1.c Emission Limitations:

12 tpy of particulates from the thermal oxidizer
0.53 tpy of SO2 from the thermal oxidizer
26.3 tpy of NOx from the thermal oxidizer

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the appropriate hourly allowable emission limitation by the actual annual hours of operation, and then dividing by 2000 lbs/hr.

1.d Emission Limitation:

VOC emissions from this emissions unit shall not exceed 4.4 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emissions unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 25 or 25A.

1.e Emission Limitation:

VOC vent emissions from this emissions unit shall not exceed 15.9 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping specified in section A.III.2.

1.f Emission Limitation:

15.9 tons of VOC per rolling, 365-day period for emissions units P003 and P022, combined

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping as described in section A.III.2 using the summation of the emissions for emissions units P003 and P022.

1.g Emission Limitation:

There shall be no visible emissions in excess of 10% opacity as a 6-minute average in any 60-minute observation period.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

2. The following emissions units vent to the RTO: P003 (performance foams line #1), P022 (performance foams line #2), P014 (performance foams line #3), P023 (performance foams recycle line), P017 (curing warehouse), and P018 (curing warehouse).

The permittee shall conduct, or have conducted, emission testing for the RTO in accordance with the following requirements:

a. The emission testing shall be conducted within 12 months prior to the expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate VOC and the control efficiency limitation for VOC.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for VOC, Methods 1 through 4 and Method 25A of 40

CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the control efficiency limitation for VOC is specified below. 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 all the above-mentioned emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Portsmouth local air agency.

e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(C). 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.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth 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 Portsmouth local air agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth 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 emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth 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 Portsmouth local air agency.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 5/30/02: A.V.1 and A.V.2. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## 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 |
|---|---|---|
| performance foams plant- line #1 controlled by a thermal oxidizer | | |

**2. Additional Terms and Conditions**

None

## II. Operational Restrictions

None

## III. Monitoring and/or Recordkeeping

1. The permit to install for this emissions unit [P003] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the “worst case” pollutant(s):

   Pollutant: VOC (blowing agent)
   TLV(ug/m3): 177055
   Maximum Hourly Emission Rate (lbs/hr): 40.2*
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 224.64
   MAGLC (ug/m3): 42156

* This was modeled for emissions units P003, P022, P023, P014, P017, and P018, combined.

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

   a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

   b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

   c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

   The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

   a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

   b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

   c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Line 1 M/L Plstcs Pro (P009)
Activity Description: Raw materials are processed to form Expanded Polystyrene Foam

## 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 |
|---|---|---|
| polystyrene foam plant - mainline and product storage warehouses | OAC rule 3745-31-05(A)(3) (PTI 07-00390 as issued on 2/14/2006) | 7.9 lbs/hr of volatile organic compounds (VOC)<br><br>33 tpy of VOC as a rolling, 12-month summation<br><br>216 tpy of VOC fugitive emissions as a rolling, 12-month summation<br><br>5.5 lbs/hr of HCFC 142b<br><br>20.3 tpy of HCFC 142b as a rolling, 12-month summation<br><br>11 tpy HCFC 142b fugitive emissions as a rolling, 12-month summation<br><br>4.8 lbs/hr of HFC 152a<br><br>7.7 tpy HFC 152a as a rolling, 12-month summation |

## 2. Additional Terms and Conditions

2.a OAC rule 3745-21-07 does not apply to this emissions unit because none of the materials used in this process is a liquid organic material.

## II. Operational Restrictions

None

## III. Monitoring and/or Recordkeeping

1. The permittee shall maintain monthly records consisting of the following:

   a. the usage of each blowing agent [HCFC 142b, HFC 152a, and VOC], in pounds;

   b. the die loss factors;

   c. the processing losses;

   d. the storage factor;

   e. the rolling, 12-month total of the tons of each blowing agent [HCFC 142b, HFC 152a, and VOC] employed;

   f. the HCFC 142b, HFC 152a, and VOC vent emissions (calculated by multiplying the total amount of blowing agent used in the process by the die loss factor), and the rolling, 12-month summation of the vent emissions for each compound;

   g. the HCFC 142b, HFC 152a, and VOC fugitive emissions (calculated by subtracting the die losses and processing losses, from the total amount of blowing agent used in the process, and then multiplying by the storage factor), and the rolling, 12-month summation of the fugitive emissions for each compound;

   h. the hours of operation; and

   i. the average hourly combined vent and fugitive emissions for HCFC 142b, HFC 152a, and VOC.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00390, as modified on 2/14/2006: A.III.1. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:

   a. an identification of each month during which the average hourly VOC emissions exceeded 7.9 lbs/hr, and the actual average hourly VOC emissions for each such month;

   b. an identification of each month during which the average hourly HCFC 142b emissions exceeded 5.5 lbs/hr, and the actual average hourly HCFC 142b emissions for each such month; and

   c. an identification of each month during which the average hourly HFC 152a emissions exceeded 4.8 lbs/hr, and the actual average hourly HFC 152a emissions for each such month.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitations for HCFC 142b, HFC 152a, and VOC.

3. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install # 07-00390, as modified on 2/14/2006: A.IV.1 through A.IV.3. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## 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 method:

1.a Emission Limitations:

7.9 lbs/hr of VOC
5.5 lbs/hr of HCFC 142b
4.8 lbs/hr of HFC 152a

Applicable Compliance Method:

Compliance shall be demonstrated based upon the records required in section A.III.1 and the most recent version of the emissions tracking program, approved by the Portsmouth local air agency, and used to calculate emissions from this emissions unit. This program has been defined

by The Dow Chemical Corporation as the "Foam Blowing Agent Emission Model" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.1 above and/or other appropriate factors to calculate emission rates from this emissions unit. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon stack testing using the procedures specified in 40 CFR Part 60, Appendix A.

1.b Emission Limitations:

33 tpy of VOC as a rolling, 12-month summation
216 tpy of VOC fugitive emissions as a rolling, 12-month summation
20.3 tpy of HCFC 142b as a rolling, 12-month summation
11 tpy HCFC 142b fugitive emissions as a rolling, 12-month summation
7.7 tpy HFC 152a as a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping requirements described in section A.III.1 of these terms and conditions. The rolling tpy limit shall be demonstrated by the summation of the emissions for the current month and the previous 11 months.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install # 07-00390, as modified on 2/14/2006: A.V.1. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## VI. Miscellaneous Requirements

None

**Emissions Unit:** **Line 1 M/L Plstcs Pro (P009)**

## 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 |
|---|---|---|
| polystyrene foam plant - mainline and product storage warehouses | | |

**2. Additional Terms and Conditions**

None

## II. Operational Restrictions

None

## III. Monitoring and/or Recordkeeping

1. The permit to install for this emissions unit (P009) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the “worst case” pollutant(s):

   Pollutant: VOC (blowing agent)
   TLV (mg/m3): 1720

Maximum Hourly Emission Rate (lbs/hr): 7.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 624.6
MAGLC (ug/m3): 40952

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

   a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

   b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

   c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

   The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

   a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

   b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

   c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**Emissions Unit:** **Line 1 M/L Plstcs Pro (P009)**

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Dow Polystyrene Polymerization Process - Train #2 (P010)
Activity Description: Process which produces polystyrene copolymers (StyronTM)

## 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 |
|---|---|---|
| polystyrene process train #2 vented to the dowtherm boilers R-1 and R-3 | OAC rule 3745-31-05(A)(3) (PTI 07-446) | no visible particulate emissions from the rework filter receiver ME-710, transfer system, and screening operation<br><br>See A.I.2.d and A.I.2.e below. |
| | OAC rule 3745-21-09(DD) | See A.I.2.c below. |
| | OAC rule 3745-21-09(CC) | See A.I.2.a below. |
| | 40 CFR Part 63, Subpart JJJ | Styrene Acrylonitrile Resin Thermoplastic Product Process Unit<br><br>See A.I.2.b below.<br><br>Additional requirements are specified in Part II, section A.II. - Specific Facility Terms and Conditions. |
| | 40 CFR Part 63, Subpart A | See Part II - Specific Facility Terms and Conditions, sections A.II. (Table 1) and A.III. |

## 2. Additional Terms and Conditions

2.a The permittee shall not discharge into the ambient air any volatile organic compounds (VOC) from the material recovery section in excess of 0.12 pound of VOC per 1000 pounds of product produced.

2.b The permittee of an affected emissions unit producing polystyrene resin using a continuous process shall comply with the requirements of this rule by reducing emissions from all process vents, as defined in 40 CFR 63.1312, by 98 weight percent or to a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent. If the permittee elects to comply with the 20 ppmv standard, the concentration shall include a correction to 3 percent oxygen only when supplemental combustion air is used to combust the emissions. Compliance shall be based on either organic HAP or TOC

2.c The leak detection and repair (LDAR) program specified by this applicable rule is equivalent to or less stringent than the LDAR program specified by 40 CFR Part 63, Subpart JJJ.

2.d Compliance with 40 CFR Part 63, Subpart JJJ shall satisfy the best available technology (BAT) requirement for this emissions unit.

2.e Process emissions from this emissions unit shall be vented to the Dowtherm boilers R-1 (B010) and R-3 (B020). There shall be no increase in the allowable emissions from the Dowtherm boilers. The Dowtherm boilers R-1 and R-3 shall also comply with the applicable requirements of 40 CFR Part 266, Subpart H.

## II. Operational Restrictions

1. If a boiler or heater is used to comply with the percent reduction requirement or concentration limit specified in section A.I.2.b, then the vent stream shall be introduced into the flame zone of such a device.

## III. Monitoring and/or Recordkeeping

1. The monitoring and record keeping provisions of the LDAR program for this emissions unit are specified in Part II, sections A.II..

2. The permittee shall maintain daily records, in pounds, of the amount of each raw material used in this process unit and the hourly VOC emissions from this emissions unit.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-446, issued on 10/1/97: A.III.1 and A.III.2. The monitoring and record keeping requirements contained in the above-referenced Permit to Install

are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

## IV. Reporting Requirements

1. The reporting provisions of the LDAR program for this emissions unit are specified in Part II, sections A.II.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install 07-00479, issued on 5/3/00: A.IV.1. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

The permittee shall not discharge into the ambient air any volatile organic compounds (VOC) from the material recovery section in excess of 0.12 pound of VOC per 1000 pounds of product produced.

Applicable Compliance Method:

Compliance shall be demonstrated based on the results of the most recent compliance test conducted on the Dowtherm heaters (B010 and B020).

1.b Emission Limitation:

Reduce emissions by 98 weight percent or to a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent.

Applicable Compliance Method:

Compliance shall be demonstrated based on compliance with 40 CFR Part 266, Subpart H for the Dowtherm boilers R-1 and R-3 (B010 and B020).

1.c Emission Limitation:

no visible particulate emissions from the rework filter receiver ME-710, transfer system, and screening operation

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-446, issued on 10/1/97: A.V.1. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## 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 Recordkeeping

None

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Plant - Line #3 (P014)
Activity Description: Performance Foams Manufacturing Process - Line 3.

## 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 |
|---|---|---|
| performance foams plant- line #3 controlled by a thermal oxidizer | OAC rule 3745-31-05(A)(3) (PTI 07-00494) | Controlled volatile organic compounds (VOC) emissions from this emissions unit shall not exceed 3.3 lbs/hr.<br><br>Allowable emissions from the thermal oxidizer (for the emissions units specified in section A.I.2.b) shall not exceed the following:<br><br>2.75 lbs/hr of particulate emissions<br>12 tpy of particulate emissions<br><br>0.12 lb/hr of sulfur dioxide (SO2)<br>0.53 tpy of SO2<br><br>6.0 lbs/hr of nitrogen oxides (NOx)<br>26.3 tpy of NOx<br><br>40.2 lbs/hr of volatile organic compounds (VOC)<br><br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C). |

| | |
|---|---|
| | See A.I.2.a through A.I.2.e and A.I.2.g below. |
| OAC rule 3745-31-05(C) SYNTHETIC MINOR TO AVOID PSD | 23.2 tons of VOC per rolling, 365-day period for emissions units P003, P022, P014, and P023, combined |
| OAC rule 3745-17-07(A) | See A.I.2.f below. |
| OAC rule 3745-17-11(B) | See A.I.2.f below. |

## 2. Additional Terms and Conditions

2.a VOC emissions from this emissions unit shall not exceed 14.5 tpy, based upon a rolling, 365-day summation of the daily emissions.

2.b The following emissions units are vented to the regenerative thermal oxidizer (RTO): P003 (performance foams line #1), P022 (performance foams line #2), P023 (performance foams recycle line), P014 (performance foams line #3), P017 (performance foams primary curing warehouse #1) and P018 (performance foams primary curing warehouse #2).

2.c VOC emissions vented to the RTO shall be controlled by at least 98% at maximum operating capacity.

2.d The shutdown of the RTO shall be accompanied by the shutdown of all the performance foam process units which are vented to it.

2.e There shall be no visible emissions in excess of 10% opacity, as a 6-minute average, during any 60-minute observation period.

2.f The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.g The 3.3 lbs/hr VOC limitation for this emissions unit and the 40.2 lbs/hr VOC limitation for emissions units P003, P014, P017, P018, P022, and P023, combined, were established to reflect the hourly potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

# II. Operational Restrictions

1. Combined blowing agent (VOC) usage for emissions unit P003, P022, and P014 shall not exceed 3540 tpy, based upon a rolling, 365-day summation of the daily usage.

2. A minimum temperature of 1425 degrees Fahrenheit shall be maintained in the combustion zone of the thermal oxidizer.

3. The thermal oxidizer, including any associated equipment and piping, shall be designed, operated, and maintained so as to prevent the emissions of objectionable odors.

## III. Monitoring and/or Recordkeeping

1. The facility shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emission unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

   The permittee shall collect and record the following information for each day:

   a. all 3-hr blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was less than 1425 degrees Fahrenheit; and

   b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emission unit is in operation.

2. The permittee shall maintain daily records of the following information for P003, P014, and P022:

   a. the daily usage of blowing agent (VOC), in lbs;

   b. the total combined rolling, 365-day total of the tons of blowing agent (VOC) employed;

   c. the product type groups produced;

   d. the product type die loss factors;

   e. the hole punching factor;

   f. the daily VOC vent emissions;

   g. the total combined VOC (blowing agent) emissions, in tons, calculated as a rolling, 365-day summation;

   h. the date and time of each thermal oxidizer shutdown; and

   i. the duration of time for each thermal oxidizer shutdown.

The daily vent emissions for emissions units P003, P014, and P022 are calculated by multiplying the amount of blowing agent released in each process by the destruction efficiency of the control device. The blowing agent released in the process is calculated based on the quantity of product produced on each line (P003, P014, and P022) per day and the amount of blowing agent on each product.

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emission from the RTO stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emissions incident; and

   e. any corrective actions taken to eliminate the visible emissions.

   If the weekly checks show emissions that are representative of normal operation for 1 operating quarter, the required frequency of visible emission checks may be reduced to bi-weekly (once every two weeks, when the emissions unit is in operation). If a subsequent check by the permittee or an Ohio EPA inspector indicates emissions that are not representative of normal operation, the frequency of emission checks shall revert back to weekly until such time as there is 1 operating quarter of normal visible emissions.

4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 5/30/02: A.III.1 and A.III.3. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day combined emission and usage limitations for blowing agent (VOC) for P003, P014 and P022.

2. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time during which the thermal oxidizer combustion zone temperature does not comply with the temperature limitation specified in section A.III.1. Each report shall be submitted within 30 days after the deviation occurs.

3. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.

5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 5/30/02: A.IV.1 through A.IV.4. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:

2.75 lbs/hr of particulates from the thermal oxidizer
0.12 lb/hr of SO2 from the thermal oxidizer
6.0 lbs/hr of NOx from the thermal oxidizer

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the following Test Methods: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for SO2, Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A; for NOx, Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A.

1.b Emission Limitations:

40.2 lbs/hr of VOC from the thermal oxidizer

VOC emissions vented to the thermal oxidizer shall be controlled by at least 98% at maximum operating capacity.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the Test Methods as described in section A.V.2.

1.c Emission Limitations:

12 tpy of particulates from the thermal oxidizer
0.53 tpy of SO2 from the thermal oxidizer
26.3 tpy of NOx from the thermal oxidizer

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the appropriate hourly allowable emission limitation by the actual annual hours of operation, and then dividing by 2000 lbs/hr.

1.d Emission Limitation:

VOC emissions from this emissions unit shall not exceed 3.3 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emissions unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 25 or 25A.

1.e Emission Limitation:

VOC vent emissions from this emissions unit shall not exceed 14.5 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping specified in section A.III.2.

1.f Emission Limitation:

23.2 tons of VOC per rolling, 365-day period for emissions units P003 , P022, P014 and P023, combined

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping as described in section A.III.2 using the summation of the emissions for emissions units P003, P022, P014, and P023.

1.g Emission Limitation:

There shall be no visible emissions in excess of 10% opacity as a 6-minute average in any 60-minute observation period.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

2. The following emissions units vent to the RTO: P003 (performance foams line #1), P022 (performance foams line #2), P014 (performance foams line #3), P023 (performance foams recycle line), P017 (curing warehouse), and P018 (curing warehouse).

The permittee shall conduct, or have conducted, emission testing for the RTO in accordance with the following requirements:

a. The emission testing shall be conducted within 12 months prior to the expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for VOC and the control efficiency limitation for VOC.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for VOC, Methods 1 through 4 and Method 25A of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the control efficiency limitation for VOC is specified below. 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 all the above-mentioned emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Portsmouth local air agency.

e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(C). 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.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth 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 Portsmouth local air agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth 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 emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth 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 Portsmouth local air agency.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 5/30/02: A.V.1 and A.V.2. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## 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 |
|---|---|---|
| performance foams plant- line #3 controlled by a thermal oxidizer | | |

**2. Additional Terms and Conditions**

None

## II. Operational Restrictions

None

## III. Monitoring and/or Recordkeeping

1. The permit to install for this emissions unit [P014] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the “worst case” pollutant(s):

   Pollutant: VOC (blowing agent)
   TLV(ug/m3): 177055
   Maximum Hourly Emission Rate (lbs/hr): 40.2*
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 224.64
   MAGLC (ug/m3): 42156

* This was modeled for emissions units P003, P022, P023, P014, P017, and P018, combined.

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

   a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

   b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

   c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

   The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

   a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

   b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

   c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Polystyrene Recycle Processing Unit (P015)

Activity Description: Recycles Polystyrene. Lines 1 & 2 Polystyrene Recycling 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 |
|---|---|---|
| polystyrene foam recycle line controlled with a baghouse | OAC rule 3745-31-05(A)(3) (PTI 07-00390 as issued on 2/14/2006) | 1 lb/hr of particulate emissions<br><br>4.38 tpy of particulate emissions as a rolling, 12-month summation<br><br>45.5 lbs/hr of volatile organic compounds (VOC)<br><br>199.2 tpy of VOC as a rolling, 12-month summation<br><br>162.8 lbs/hr of HCFC 142b<br><br>713.2 tpy of HCFC 142b as a rolling, 12-month summation<br><br>79.2 lbs/hr of HFC 152a<br><br>249 tpy of HFC 152a as a rolling, 12-month summation |
| | OAC rule 3745-17-11(B) | See A.I.2.a below. |
| | 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.

### 2. Additional Terms and Conditions

2.a The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

## II. Operational Restrictions

None

## III. Monitoring and/or Recordkeeping

1. The permittee shall maintain monthly records consisting of the following:

   a. the weight fraction of HCFC 142b, HFC 152a, and VOC, used in recycle products for emissions unit P009;

   b. the amount of scrap recycled, in lbs;

   c. the scrap cure factor;

   d. the HCFC 142b, HFC 152a, and VOC emissions;

   e. the HCFC 142b, 152a, and VOC emissions, calculated as a rolling, 12-month summation;

   f. the rolling, 12-month total of the tons of HCFC 142b, 152a, and VOC employed;

   g. the total hours of operation; and

   h. the average hourly emission rate for HCFC 142b, 152a, and VOC.

2. The permittee shall perform weekly checks, when the emission unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack for this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

If the weekly checks show emissions that are representative of normal operation for 1 operating quarter, the required frequency of visible emission checks may be reduced to bi-weekly (once every two weeks, when the emissions unit is in operation). If a subsequent check by the permittee or an Ohio EPA inspector indicates emissions that are not representative of normal operation, the frequency of emission checks shall revert back to weekly until such time as there is 1 operating quarter of normal visible emissions.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00390, as modified on 2/14/2006: A.III.1 and A.III.2. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:

   a. an identification of each month during which the average hourly VOC emissions exceeded 45.5 lbs/hr, and the actual average hourly VOC emissions for each such month;

   b. an identification of each month during which the average hourly HCFC 142b emissions exceeded 162.8 lbs/hr, and the actual average hourly HCFC 142b emissions for each such month; and

   c. an identification of each month during which the average hourly HFC 152a emissions exceeded 79.2 lbs/hr, and the actual average hourly HFC 152a emissions for each such month.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitations for HCFC 142b, HFC 152a, and VOC.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #7-

00390, as modified on 2/14/2006: A.IV.1 through A.IV.4. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## 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:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures required in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

45.5 lbs/hr of VOC
162.8 lbs/hr of HCFC 142b
79.2 lbs/hr of HFC 152a

Applicable Compliance Method:

Compliance shall be demonstrated based upon the records required in section A.III.1 and the most recent version of the emissions tracking program, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This program has been defined by The Dow Chemical Corporation as the "Foam Blowing Agent Emission Model" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.1 above and/or other appropriate factors to calculate emissions rates from this emissions unit. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon stack testing using the procedures specified in 40 CFR Part 60, Appendix A.

1.c Emission Limitation:

1 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance may be demonstrated based upon the most recent version of the emissions tracking program, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This program has been defined by The Dow Chemical Corporation as the "Foam Blowing Agent Emission Model" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.1 above and/or other appropriate factors to calculate emissions rates from this emissions unit. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon stack testing using the procedures specified in 40 CFR Part 60, Appendix A.

1.d Emission Limitation:

4.38 tpy of particulate emissions as a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly particulate emission limitation by the actual annual hours of operation, and then dividing by 2000 lbs/ton.

1.e Emission Limitation:

199.2 tpy of VOC as a rolling, 12-month summation
713.2 tpy of HCFC 142b as a rolling, 12-month summation
249 tpy of HFC 152a as a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping requirements described in section A.III.1 of these terms and conditions. The rolling TPY limit shall demonstrated by the summation of the current month emissions and the previous 11 month emissions.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install# 07-00390, as modified on 2/14/2006: A.V.1. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## 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 |
|---|---|---|
| polystyrene foam recycle line controlled with a baghouse | | |

**2. Additional Terms and Conditions**

None

## II. Operational Restrictions

None

## III. Monitoring and/or Recordkeeping

1. The permit to install for this emissions unit (P015) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the “worst case” pollutant(s):

   Pollutant: VOC (blowing agent)
   TLV (mg/m3): 1720
   Maximum Hourly Emission Rate (lbs/hr): 45.5
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3584
   MAGLC (ug/m3): 40952

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

   a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

   b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

   c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

   The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

   a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

   b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

   c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Primary Curing Warehouse #1 (P017)
Activity Description: Performance Foams Primary Curing Warehouse #1, controlled by 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 |
|---|---|---|
| performance foams primary curing warehouse #1 controlled by a thermal oxidizer | OAC rule 3745-31-05(A)(3) (PTI 07-00494) | Controlled volatile organic compounds (VOC) emissions shall not exceed 8.1 lbs/hr.<br><br>Allowable emissions from the thermal oxidizer (for the emissions units specified in section A.I.2.b) shall not exceed the following:<br><br>2.75 lbs/hr of particulate emissions<br>12 tpy of particulate emissions<br><br>0.12 lb/hr of sulfur dioxide (SO2)<br>0.53 tpy of SO2<br><br>6.0 lbs/hr of nitrogen oxides (NOx)<br>26.3 tpy of NOx<br><br>40.2 lbs/hr of volatile organic compounds (VOC)<br><br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C). |

| | |
|---|---|
| | See A.I.2.a through A.I.2.d, A.I.2.f, and A.I.2.g below. |
| OAC rule 3745-31-05(C) SYNTHETIC MINOR TO AVOID PSD | See A.I.2.a below. |
| OAC rule 3745-17-07(A) | See A.I.2.e below. |
| OAC rule 3745-17-11(B) | See A.I.2.e below. |

## 2. Additional Terms and Conditions

2.a VOC emissions from this emissions unit shall not exceed 14.0 tpy, based upon a rolling, 365-day summation of the daily emissions.

2.b The following emissions units are vented to the regenerative thermal oxidizer (RTO): P003 (performance foams line #1), P022 (performance foams line #2), P023 (performance foams recycle line), P014 (performance foams line #3), P017 (performance foams primary curing warehouse #1) and P018 (performance foams primary curing warehouse #2).

2.c VOC emissions vented to the RTO shall be controlled by at least 98% at maximum operating capacity.

2.d There shall be no visible emissions in excess of 10% opacity, as a 6-minute average, during any 60-minute observation period.

2.e The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.f The 8.1 lbs/hr VOC limitation for this emissions unit and the 40.2 lbs/hr VOC limitation for emissions units P003, P014, P017, P018, P022, and P023, combined, were established to reflect the hourly potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

2.g Combined VOC emissions from performance foams primary curing warehouse #1 (P017) and #2 (P018) shall not exceed 16,000 lbs/day when the thermal oxidizer is shutdown.

# II. Operational Restrictions

1. The blowing agent (VOC) usage restriction on the performance foams lines (P003, P022, and P014) results in restricted annual emissions from this emissions unit.

2. A minimum temperature of 1425 degrees Fahrenheit shall be maintained in the combustion zone of the thermal oxidizer.

3. The thermal oxidizer, including any associated equipment and piping, shall be designed, operated, and maintained so as to prevent the emissions of objectionable odors.

## III. Monitoring and/or Recordkeeping

1. The facility shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emission unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

   The permittee shall collect and record the following information for each day:

   a. all 3-hr blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was less than 1425 degrees Fahrenheit; and

   b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emission unit is in operation.

2. The permittee shall maintain daily records of the following information:

   a. the curing warehouse factor;

   b. the curing warehouse inventory;

   c. the daily VOC vent emissions from this emissions unit;

   d. the VOC emissions, in tons, calculated as a rolling, 365-day summation for this emissions unit;

   e. the date and time of each thermal oxidizer shutdown;

   f. the duration of time for each thermal oxidizer shutdown;

   g. the daily emissions from this emissions unit when the thermal oxidizer is shutdown;

   h. the daily emissions from emissions units P017 and P018, combined, when the thermal oxidizer is shutdown; and

i. the rolling, 365-day total of the tons of blowing agent (VOC) employed for all performance foams process lines (P003, P022, and P014) calculated each day.

The daily vent emissions for emissions unit are calculated by multiplying the amount of blowing agent released from this emission unit by the destruction efficiency of the control device. The blowing agent released is calculated based on the daily curing warehouse inventory and the curing warehouse factor. The curing warehouse factor is dependent on the amount of blowing agent employed in performance foams process lines (P003, P022 and P014).

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emission from the RTO stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emissions incident; and

   e. any corrective actions taken to eliminate the visible emissions.

   If the weekly checks show emissions that are representative of normal operation for 1 operating quarter, the required frequency of visible emission checks may be reduced to bi-weekly (once every two weeks, when the emissions unit is in operation). If a subsequent check by the permittee or an Ohio EPA inspector indicates emissions that are not representative of normal operation, the frequency of emission checks shall revert back to weekly until such time as there is 1 operating quarter of normal visible emissions.

4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 05/30/02: A.III.1 through A.III.3. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day VOC emission limitation.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all blocks of time during which the thermal oxidizer combustion zone temperature does not comply with the temperature limitation specified in section A.III.1.

3. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.

5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.IV.1 through A.IV.4. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:

2.75 lbs/hr of particulates from the thermal oxidizer
0.12 lb/hr of SO2 from the thermal oxidizer
6.0 lbs/hr of NOx from the thermal oxidizer

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the following Test Methods: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for SO2, Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A; for NOx, Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A.

1.b Emission Limitations:

40.2 lbs/hr of VOC from the thermal oxidizer

VOC emissions vented to the thermal oxidizer shall be controlled by at least 98% at maximum operating capacity.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the Test Methods as described in section A.V.2.

1.c Emission Limitations:

12 tpy of particulates from the thermal oxidizer
0.53 tpy of SO2 from the thermal oxidizer
26.3 tpy of NOx from the thermal oxidizer

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the appropriate hourly allowable emission limitation by the actual annual hours of operation, and then dividing by 2000 lbs/hr.

1.d Emission Limitation:

VOC emissions from this emissions unit shall not exceed 8.1 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 25 or 25A.

1.e Emission Limitation:

VOC emissions from this emissions unit shall not exceed 14.0 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping specified in section A.III.2.

1.f Emission Limitation:

Combined VOC emissions from performance foams primary curing warehouse #1 (P017) and #2 (P018) shall not exceed 16,000 lbs/day when the thermal oxidizer is shutdown.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the records required in section A.III.2 and the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates .This program shall be available to an OEPA representative at any time during normal business hours.

1.g Emission Limitation:

There shall be no visible emissions in excess of 10% opacity as a 6-minute average in any 60-minute observation period.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

2. The following emissions units vent to the RTO: P003 (performance foams line #1), P022 (performance foams line #2), P014 (performance foams line #3), P023 (performance foams recycle line), P017 (curing warehouse), and P018 (curing warehouse).

The permittee shall conduct, or have conducted, emission testing for the RTO in accordance with the following requirements:

a. The emission testing shall be conducted within 12 months prior to expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for VOC and the control efficiency limitation for VOC.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for VOC, Methods 1 through 4 and Method 25A of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the control efficiency limitation for VOC is specified below. 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 all the above-mentioned emissions unit are operating at or near their maximum capacities, unless otherwise specified or approved by the Portsmouth local air agency.

e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(C). 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.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth 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 Portsmouth local air agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth 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 emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth 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 Portsmouth local air agency.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.V.1 and A.V.2. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## 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 |
|---|---|---|
| performance foams primary curing warehouse #1 controlled by a thermal oxidizer | | |

**2. Additional Terms and Conditions**

None

## II. Operational Restrictions

None

## III. Monitoring and/or Recordkeeping

1. The permit to install for this emissions unit [P017] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the “worst case” pollutant(s):

   Pollutant: VOC (blowing agent)
   TLV(ug/m3): 177055

Maximum Hourly Emission Rate (lbs/hr): 40.2*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 224.64
MAGLC (ug/m3): 42156

* This was modeled for emissions units P003, P022, P023, P014, P017, and P018, combined.

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

   a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

   b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

   c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

   The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

   a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

   b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Primary Curing Warehouse #2 (P018)
Activity Description: Performance Foams Primary Curing Warehouse #2, controlled by 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 |
|---|---|---|
| performance foams primary curing warehouse #2 controlled by a thermal oxidizer | OAC rule 3745-31-05(A)(3) (PTI 07-00494) | Controlled volatile organic compounds (VOC) emissions shall not exceed 19.2 lbs/hr.<br><br>Allowable emissions from the thermal oxidizer (for the emissions units specified in section A.I.2.b) shall not exceed the following:<br><br>2.75 lbs/hr of particulate emissions<br>12 tpy of particulate emissions<br><br>0.12 lb/hr of sulfur dioxide (SO2)<br>0.53 tpy of SO2<br><br>6.0 lbs/hr of nitrogen oxides (NOx)<br>26.3 tpy of NOx<br><br>40.2 lbs/hr of volatile organic compounds (VOC)<br><br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C). |

| | |
|---|---|
| | See A.I.2.a through A.I.2.d, A.I.2.f and A.I.2.g below. |
| OAC rule 3745-31-05(C) SYNTHETIC MINOR TO AVOID PSD | See A.I.2.a below. |
| OAC rule 3745-17-07(A) | See A.I.2.e below. |
| OAC rule 3745-17-11(B) | See A.I.2.e below. |

## 2. Additional Terms and Conditions

2.a VOC emissions from this emissions unit shall not exceed 31.5 tpy, based upon a rolling, 365-day summation of the daily emissions.

2.b The following emissions units are vented to the regenerative thermal oxidizer (RTO): P003 (performance foams line #1), P022 (performance foams line #2), P023 (performance foams recycle line), P014 (performance foams line #3), P017 (performance foams primary curing warehouse #1) and P018 (performance foams primary curing warehouse #2).

2.c VOC emissions vented to the RTO shall be controlled by at least 98% at maximum operating capacity.

2.d There shall be no visible emissions in excess of 10% opacity, as a 6-minute average, during any 60-minute observation period.

2.e The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.f The 19.2 lbs/hr VOC limitation for this emissions unit and the 40.2 lbs/hr VOC limitation for emissions units P003, P014, P017, P018, P022, and P023, combined, were established to reflect the hourly potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

2.g Combined VOC emissions from performance foams primary curing warehouse #1 (P017) and #2 (P018) shall not exceed 16,000 lbs/day when the thermal oxidizer is shutdown.

## II. Operational Restrictions

1. The blowing agent (VOC) usage restriction on the performance foams lines (P003, P022, and P014) results in restricted annual emissions from this emissions unit.

2. A minimum temperature of 1425 degrees Fahrenheit shall be maintained in the combustion zone of the thermal oxidizer.

3. The thermal oxidizer, including any associated equipment and piping, shall be designed, operated, and maintained so as to prevent the emissions of objectionable odors.

## III. Monitoring and/or Recordkeeping

1. The facility shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emission unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

   The permittee shall collect and record the following information for each day:

   a. all 3-hr blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was less than 1425 degrees Fahrenheit; and

   b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emission unit is in operation.

2. The permittee shall maintain daily records of the following information:

   a. the curing warehouse factor;

   b. the curing warehouse inventory;

   c. the daily VOC vent emissions from this emissions unit;

   d. the VOC emissions, in tons, calculated as a rolling, 365-day summation for this emissions unit;

   e. the date and time of each thermal oxidizer shutdown;

   f. the duration of time for each thermal oxidizer shutdown;

   g. the daily emissions from this emissions unit when the thermal oxidizer is shutdown;

h. the daily emissions from emissions units P017 and P018, combined, when the thermal oxidizer is shutdown; and

i. the rolling, 365-day total of the tons of blowing agent (VOC) employed for all performance foams process lines (P003, P022, and P014) calculated each day.

The daily vent emissions for emissions unit are calculated by multiplying the amount of blowing agent released from this emission unit by the destruction efficiency of the control device. The blowing agent released is calculated based on the daily curing warehouse inventory and the curing warehouse factor. The curing warehouse factor is dependent on the amount of blowing agent employed in performance foams process lines (P003, P022 and P014).

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emission from the RTO stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emissions incident; and

e. any corrective actions taken to eliminate the visible emissions.

If the weekly checks show emissions that are representative of normal operation for 1 operating quarter, the required frequency of visible emission checks may be reduced to bi-weekly (once every two weeks, when the emissions unit is in operation). If a subsequent check by the permittee or an Ohio EPA inspector indicates emissions that are not representative of normal operation, the frequency of emission checks shall revert back to weekly until such time as there is 1 operating quarter of normal visible emissions.

4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 05/30/02: A.III.1 through A.III.3. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day VOC emission limitation.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all blocks of time during which the thermal oxidizer combustion zone temperature does not comply with the temperature limitation specified in section A.III.1.

3. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.

5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.IV.1 through A.IV.4. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:

2.75 lbs/hr of particulates from the thermal oxidizer
0.12 lb/hr of SO2 from the thermal oxidizer
6.0 lbs/hr of NOx from the thermal oxidizer

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the following Test Methods: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for SO2, Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A; for NOx, Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A.

1.b Emission Limitations:

40.2 lbs/hr of VOC from the thermal oxidizer

VOC emissions vented to the thermal oxidizer shall be controlled by at least 98% at maximum operating capacity.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the Test Methods as described in section A.V.2.

1.c Emission Limitations:

12 tpy of particulates from the thermal oxidizer
0.53 tpy of SO2 from the thermal oxidizer
26.3 tpy of NOx from the thermal oxidizer

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the appropriate hourly allowable emission limitation by the actual annual hours of operation, and then dividing by 2000 lbs/hr.

1.d Emission Limitation:

VOC emissions from this emissions unit shall not exceed 19.2 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 25 or 25A.

1.e Emission Limitation:

VOC vent emissions from this emissions unit shall not exceed 31.5 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping specified in section A.III.2.

1.f Emission Limitation:

Combined VOC emissions from performance foams primary curing warehouse #1 (P017) and #2 (P018) shall not exceed 16,000 lbs/day when the thermal oxidizer is shutdown.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the records required in section A.III.2 and the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates .This program shall be available to an OEPA representative at any time during normal business hours.

1.g Emission Limitation:

There shall be no visible emissions in excess of 10% opacity as a 6-minute average in any 60-minute observation period.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

2. The following emissions units vent to the RTO: P003 (performance foams line #1), P022 (performance foams line #2), P014 (performance foams line #3), P023 (performance foams recycle line), P017 (curing warehouse), and P018 (curing warehouse).

The permittee shall conduct, or have conducted, emission testing for the RTO in accordance with the following requirements:

a. The emission testing shall be conducted within 12 months prior to the expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates VOC and the control efficiency limitation for VOC.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for VOC, Methods 1 through 4 and Method 25A of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the control efficiency limitation for VOC is specified below. 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 all the above-mentioned emissions unit are operating at or near their maximum capacities, unless otherwise specified or approved by the Portsmouth local air agency.

e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(C). 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.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth 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 Portsmouth local air agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth 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 emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth 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 Portsmouth local air agency.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.V.1 and A.V.2. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## 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 |
|---|---|---|
| performance foams primary curing warehouse #2 controlled by a thermal oxidizer | | |

**2. Additional Terms and Conditions**

None

## II. Operational Restrictions

None

## III. Monitoring and/or Recordkeeping

1. The permit to install for this emissions unit [P018] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the “worst case” pollutant(s):

   Pollutant: VOC (blowing agent)
   TLV(ug/m3): 177055

Maximum Hourly Emission Rate (lbs/hr): 40.2*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 224.64
MAGLC (ug/m3): 42156

* This was modeled for emissions units P003, P022, P023, P014, P017, and P018, combined.

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

   a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

   b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

   c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

   The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

   a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

   b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Product Storage Warehouse #1 (P019)
Activity Description: Performance Foams Product Storage Warehouse #1.

## 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 |
|---|---|---|
| performance foams product storage warehouse #1 | OAC rule 3745-31-05(A)(3) (PTI 07-00494) | 800 lbs/day of volatile organic compounds (VOC)<br><br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C). |
| | OAC rule 3745-31-05(C) (PTI 07-00494) Synthetic Minor to avoid PSD | See A.I.2.a below. |

**2. Additional Terms and Conditions**

2.a VOC emissions from this emissions unit shall not exceed 70 tpy, based upon a rolling, 365-day summation of the daily emissions.

## II. Operational Restrictions

1. The blowing agent (VOC) usage restriction for the performance foams lines (P003, P022, and P014) results in restricted annual emissions from this emissions unit.

## III. Monitoring and/or Recordkeeping

1. The permittee shall maintain daily records of the following information for this emissions unit:

   a. the amount of prime product placed in this storage warehouse, in board feet;
   b. the storage warehouse factor (lbs/million board feet stored);
   c. the daily VOC emissions, in lbs, i.e., (a) x (b);
   d. the rolling, 365-day total amount, in tons, of blowing agent (VOC) employed in all performance foam lines (P003, P014, and P022) calculated each day; and
   e. the VOC emissions, in tons, calculated as a rolling, 365-day summation.

   The storage warehouse factor is calculated by subtracting the amount of blowing agent released from each product type during production and during primary curing from the initial amount of blowing agent in the product. The storage warehouse factor is dependent on the amount of blowing agent employed in performance foams process lines (P003, P022 and P014).

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 05/30/02: A.III.1. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day VOC emission limitation.

2. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.IV.1 and A.IV.2. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

800 lbs/day of volatile organic compounds (VOC)

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.1 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

1.b Emission Limitation:

VOC emissions shall not exceed 70 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance shall be determined based upon the monitoring and record keeping as described in section A.III.1

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.V.1. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## 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 Recordkeeping

None

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Product Storage Warehouse #2 (P020)
Activity Description: Performance Foams Product Storage Warehouse #2.

### 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 |
|---|---|---|
| performance foams product storage warehouse #2 | OAC rule 3745-31-05(A)(3) (PTI 07-00494) | 600 lbs/day of volatile organic compounds (VOC)<br><br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C). |
| | OAC rule 3745-31-05(C) (PTI 07-00494) Synthetic Minor to avoid PSD | See A.I.2.a below. |

**2. Additional Terms and Conditions**

2.a VOC emissions from this emissions unit shall not exceed 53 tpy, based upon a rolling, 365-day summation of the daily emissions.

### II. Operational Restrictions

1. The blowing agent (VOC) usage restriction for the performance foams lines (P003, P022, and P014) results in restricted annual emissions from this emissions unit.

### III. Monitoring and/or Recordkeeping

1. The permittee shall maintain daily records of the following information for this emissions unit:

a. the amount of prime product placed in this storage warehouse, in board feet;
b. the storage warehouse factor (lbs/million board feet stored);
c. the daily VOC emissions, in lbs, i.e., (a) x (b);
d. the rolling, 365-day total amount, in tons, of blowing agent (VOC) employed in all performance foam lines (P003, P014, and P022) calculated each day; and
e. the VOC emissions, in tons, calculated as a rolling, 365-day summation.

The storage warehouse factor is calculated by subtracting the amount of blowing agent released from each product type during production and during primary curing from the initial amount of blowing agent in the product. The storage warehouse factor is dependent on the amount of blowing agent employed in performance foams process lines (P003, P022 and P014).

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 05/30/02: A.III.1. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day VOC emission limitation.

2. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.IV.1 and A.IV.2. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

600 lbs/day of volatile organic compounds (VOC)

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.1 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

1.b Emission Limitation:

VOC emissions shall not exceed 53 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance shall be determined based upon the monitoring and record keeping as described in section A.III.1.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.V.1. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## 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 Recordkeeping

None

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Product Storage Warehouse #3 (P021)
Activity Description: Performance Foams Product Storage Warehouse #3.

## 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 |
|---|---|---|
| performance foams product storage warehouse #3 | OAC rule 3745-31-05(A)(3) (PTI 07-00494) | 200 lbs/day of volatile organic compounds (VOC)<br><br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C). |
| | OAC rule 3745-31-05(C) (PTI 07-00494) Synthetic Minor to avoid PSD | See A.I.2.a below. |

**2. Additional Terms and Conditions**

2.a VOC emissions from this emissions unit shall not exceed 18 tpy, based upon a rolling, 365-day summation of the daily emissions.

## II. Operational Restrictions

1. The blowing agent (VOC) usage restriction for the performance foams lines (P003, P022, and P014) results in restricted annual emissions from this emissions unit.

## III. Monitoring and/or Recordkeeping

1. The permittee shall maintain daily records of the following information for this emissions unit:

a. the amount of prime product placed in this storage warehouse, in board feet;
b. the storage warehouse factor (lbs/million board feet stored);
c. the daily VOC emissions, in lbs, i.e., (a) x (b);
d. the rolling, 365-day total amount, in tons, of blowing agent (VOC) employed in all performance foam lines (P003, P014, and P022) calculated each day; and
e. the VOC emissions, in tons, calculated as a rolling, 365-day summation.

The storage warehouse factor is calculated by subtracting the amount of blowing agent released from each product type during production and during primary curing from the initial amount of blowing agent in the product. The storage warehouse factor is dependent on the amount of blowing agent employed in performance foams process lines (P003, P022 and P014).

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 05/30/02: A.III.1. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day VOC emission limitation.

2. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.IV.1 and A.IV.2. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

200 lbs/day of volatile organic compounds (VOC)

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.1 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

1.b Emission Limitation:

VOC emissions shall not exceed 18 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance shall be determined based upon the monitoring and record keeping as described in section A.III.1.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.V.1. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## 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 Recordkeeping

None

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Line #2 (P022)
Activity Description: Performance Foams Line #2, controlled by 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 |
|---|---|---|
| performance foams plant- line #2 controlled by a thermal oxidizer | OAC rule 3745-31-05(A)(3) (PTI 07-00494) | Controlled volatile organic compounds (VOC) emissions shall not exceed 5.2 lbs/hr.<br><br>Allowable emissions from the thermal oxidizer (for the emissions units specified in section A.I.2.b) shall not exceed the following:<br><br>2.75 lbs/hr of particulate emissions<br>12 tpy of particulate emissions<br><br>0.12 lb/hr of sulfur dioxide (SO2)<br>0.53 tpy of SO2<br><br>6.0 lbs/hr of nitrogen oxides (NOx)<br>26.3 tpy of NOx<br><br>40.2 lbs/hr of volatile organic compounds (VOC)<br><br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C). |

| | |
|---|---|
| | See A.I.2.a through A.I.2.e and A.I.2.g below. |
| OAC rule 3745-31-05(C) SYNTHETIC MINOR TO AVOID PSD (THIS LIMITATION UPON P003 AND P022 WAS PART OF AN EARLIER PTI TO AVOID PSD) | 15.9 tons of VOC per rolling, 365-day period for emissions units P003 and P022, combined |
| OAC rule 3745-17-07(A) | See A.I.2.f below. |
| OAC rule 3745-17-11(B) | See A.I.2.f below. |

## 2. Additional Terms and Conditions

2.a VOC emissions from this emissions unit shall not exceed 15.9 tpy, based upon a rolling, 365-day summation of the daily emissions.

2.b The following emissions units are vented to the regenerative thermal oxidizer (RTO): P003 (performance foams line #1), P022 (performance foams line #2), P023 (performance foams recycle line), P014 (performance foams line #3), P017 (performance foams primary curing warehouse #1) and P018 (performance foams primary curing warehouse #2).

2.c VOC emissions vented to the RTO shall be controlled by at least 98% at maximum operating capacity.

2.d The shutdown of the RTO shall be accompanied by the shutdown of all the performance foam process units which are vented to it.

2.e There shall be no visible emissions in excess of 10% opacity, as a 6-minute average, during any 60-minute observation period.

2.f The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.g The 5.2 lbs/hr VOC limitation for this emissions unit and the 40.2 lbs/hr VOC limitation for emissions units P003, P014, P017, P018, P022, and P023, combined, were established to reflect the hourly potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

## II. Operational Restrictions

1. Combined blowing agent (VOC) usage for emissions unit P003 and P022 shall not exceed 2540 tpy, based upon a rolling, 365-day summation of the daily usages.

2. A minimum temperature of 1425 degrees Fahrenheit shall be maintained in the combustion zone of the thermal oxidizer.

3. The thermal oxidizer, including any associated equipment and piping, shall be designed, operated, and maintained so as to prevent the emissions of objectionable odors.

## III. Monitoring and/or Recordkeeping

1. The facility shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emission unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

   The permittee shall collect and record the following information for each day:

   a. all 3-hr blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was less than 1425 degrees Fahrenheit; and

   b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit is in operation.

2. The permittee shall maintain daily records of the following information for P003 and P022:

   a. the daily usage of blowing agent (VOC), in lbs;

   b. the total combined rolling, 365-day total of the tons of blowing agent (VOC) employed;

   c. the product type groups produced;

   d. the product type die loss factors;

   e. the hole punching factor;

   f. the daily VOC vent emissions;

   g. the total combined VOC (blowing agent) emissions, in tons, calculated as a rolling, 365-day summation;

h. the date and time of each thermal oxidizer shutdown; and

i. the duration of time for each thermal oxidizer shutdown.

The daily vent emissions for emissions units P003 and P022 are calculated by multiplying the amount of blowing agent released in each process by the destruction efficiency of the control device. The blowing agent released in the process is calculated based on the quantity of product produced on each line (P003 and P022) per day and the amount of blowing agent on each product.

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emission from the RTO stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emissions incident; and

   e. any corrective actions taken to eliminate the visible emissions.

   If the weekly checks show emissions that are representative of normal operation for 1 operating quarter, the required frequency of visible emission checks may be reduced to bi-weekly (once every two weeks, when the emissions unit is in operation). If a subsequent check by the permittee or an Ohio EPA inspector indicates emissions that are not representative of normal operation, the frequency of emission checks shall revert back to weekly until such time as there is 1 operating quarter of normal visible emissions.

4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 05/30/02: A.III.1 through A.III.3. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day combined emission and usage limitations for VOC (blowing agent) for P003 and P022.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all blocks of time during which the thermal oxidizer combustion zone temperature does not comply with the temperature limitation specified in section A.III.1.

3. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.

5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.IV.1 through A.IV.4. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:

2.75 lbs/hr of particulates from the thermal oxidizer
0.12 lb/hr of SO2 from the thermal oxidizer
6.0 lbs/hr of NOx from the thermal oxidizer

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the following Test Methods: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for SO2, Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A; for NOx, Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A.

**Emissions Unit:** **Performance Foams Line #2 (P022)**

1.b Emission Limitations:

40.2 lbs/hr of VOC from the thermal oxidizer

VOC emissions vented to the thermal oxidizer shall be controlled by at least 98% at maximum operating capacity.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the Test Methods as described in section A.V.2.

1.c Emission Limitations:

12 tpy of particulates from the thermal oxidizer
0.53 tpy of SO2 from the thermal oxidizer
26.3 tpy of NOx from the thermal oxidizer

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the appropriate hourly allowable emission limitation by the actual annual hours of operation, and then dividing by 2000 lbs/hr.

1.d Emission Limitation:

VOC emissions from this emissions unit shall not exceed 5.2 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 25 or 25A.

1.e Emission Limitation:

VOC vent emissions from this emissions unit shall not exceed 15.9 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping specified in section A.III.2.

1.f Emission Limitation:

15.9 tons of VOC per rolling, 365-day period for emissions units P003 and P022, combined

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping as described in section A.III.2 using the summation of the emissions for emissions units P003 and P022.

1.g Emission Limitation:

There shall be no visible emissions in excess of 10% opacity as a 6-minute average in any 60-minute observation period.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

2. The following emissions units vent to the RTO: P003 (performance foams line #1), P022 (performance foams line #2), P014 (performance foams line #3), P023 (performance foams recycle line), P017 (curing warehouse), and P018 (curing warehouse).

The permittee shall conduct, or have conducted, emission testing for the RTO in accordance with the following requirements:

a. The emission testing shall be conducted within 12 months prior to the expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for VOC and the control efficiency limitation for VOC.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for VOC, Methods 1 through 4 and Method 25A of 40

CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the control efficiency limitation for VOC is specified below. 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 all the above-mentioned emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Portsmouth local air agency.

e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(C). 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.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth 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 Portsmouth local air agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth 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 emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth 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 Portsmouth local air agency.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.V.1 and A.V.2. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## 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 |
|---|---|---|
| performance foams plant- line #2 controlled by a thermal oxidizer | | |

**2. Additional Terms and Conditions**

None

## II. Operational Restrictions

None

## III. Monitoring and/or Recordkeeping

1. The permit to install for this emissions unit [P022] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the “worst case” pollutant(s):

   Pollutant: VOC (blowing agent)
   TLV(ug/m3): 177055
   Maximum Hourly Emission Rate (lbs/hr): 40.2*
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 224.64
   MAGLC (ug/m3): 42156

* This was modeled for emissions units P003, P022, P023, P014, P017, and P018, combined.

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

   a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

   b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

   c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

   The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

   a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

   b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

   c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**Emissions Unit:** **Performance Foams Line #2 (P022)**

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Recycle Line (P023)
Activity Description: Performance Foams Recycle Line.

## 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 |
|---|---|---|
| performance foams recycle line controlled by a thermal oxidizer | OAC rule 3745-31-05(A)(3) (PTI 07-00494) | Controlled volatile organic compounds (VOC) emissions shall not exceed 17.0 lbs/hr.<br><br>Allowable emissions from the thermal oxidizer (for the emissions units specified in section A.I.2.b) shall not exceed the following:<br><br>2.75 lbs/hr of particulate emissions<br>12 tpy of particulate emissions<br><br>0.12 lb/hr of sulfur dioxide (SO2)<br>0.53 tpy of SO2<br><br>6.0 lbs/hr of nitrogen oxides (NOx)<br>26.3 tpy of NOx<br><br>40.2 lbs/hr of volatile organic compounds (VOC)<br><br>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C). |

| | |
|---|---|
| | See A.I.2.a through A.I.2.f and A.I.2.h below. |
| OAC rule 3745-31-05(C) SYNTHETIC MINOR TO AVOID PSD (THIS LIMITATION UPON P003 AND P022 WAS PART OF AN EARLIER PTI TO AVOID PSD) | 23.2 tons of VOC per rolling, 365-day period for emissions units P003, P022, P014, and P023, combined |
| OAC rule 3745-17-07(A) | See A.I.2.g below. |
| OAC rule 3745-17-11(B) | See A.I.2.g below. |

## 2. Additional Terms and Conditions

2.a VOC vent emissions from this emissions unit shall not exceed 23.2 tpy, based upon a rolling, 365-day summation of the daily emissions.

2.b The following emissions units are vented to the regenerative thermal oxidizer (RTO): P003 (performance foams line #1), P022 (performance foams line #2), P023 (performance foams recycle line), P014 (performance foams line #3), P017 (performance foams primary curing warehouse #1) and P018 (performance foams primary curing warehouse #2).

2.c This emissions unit is also controlled by a baghouse. The outlet of the baghouse is vented to the RTO.

2.d VOC emissions vented to the RTO shall be controlled by at least 98% at maximum operating capacity.

2.e The shutdown of the RTO shall be accompanied by the shutdown of all the performance foam process units which are vented to it.

2.f There shall be no visible emissions in excess of 10% opacity, as a 6-minute average, during any 60-minute observation period.

2.g The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.h The 17.0 lbs/hr VOC limitation for this emissions unit and the 40.2 lbs/hr VOC limitation for emissions units P003, P014, P017, P018, P022, and P023, combined, were established to reflect the hourly potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

## II. Operational Restrictions

1. The blowing agent (VOC) usage restriction on the performance foam lines (P003, P022, and P014) results in restricted annual emissions from this emissions unit.

2. A minimum temperature of 1425 degrees Fahrenheit shall be maintained in the combustion zone of the thermal oxidizer.

3. The thermal oxidizer, including any associated equipment and piping, shall be designed, operated, and maintained so as to prevent the emissions of objectionable odors.

4. The pressure drop across the baghouse shall be maintained within the range of 0 (zero) to 10 inches of water while the emissions unit is in operation.

## III. Monitoring and/or Recordkeeping

1. The facility shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emission unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

   The permittee shall collect and record the following information for each day:

   a. all 3-hr blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was less than 1425 degrees Fahrenheit; and

   b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emission unit is in operation.

2. The permittee shall maintain daily records of the following information:

   a. the amount of scrap products ground;

   b. the concentration of blowing agent used in the recycle products from each of emissions units P003, P014, P022, and P023;

   c. the scrap cure factor;

   d. the daily scrap inventory, in lbs;

   e. the hole punching factor;

f. the daily VOC vent emissions for emissions units P003, P014, P022, and P023, combined;

g. the total VOC emissions for emissions units P003, P014, P022, and P023, calculated as a rolling, 365-day summation;

h. the date and time of each thermal oxidizer shutdown; and

i. the duration of time for each thermal oxidizer shutdown.

The daily vent emissions for emissions units P003, P014, P022 and P023 are calculated by multiplying the amount of blowing agent released in each process by the destruction efficiency of the control device. The blowing agent released in the process is calculated based on the quantity of product produced on each line (P003, P022, P014, P023) per day and the amount of blowing agent used on each product.

3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emission from the RTO stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emissions incident; and

e. any corrective actions taken to eliminate the visible emissions.

If the weekly checks show emissions that are representative of normal operation for 1 operating quarter, the required frequency of visible emission checks may be reduced to bi-weekly (once every two weeks, when the emissions unit is in operation). If a subsequent check by the permittee or an Ohio EPA inspector indicates emissions that are not representative of normal operation, the frequency of emission checks shall revert back to weekly until such time as there is 1 operating quarter of normal visible emissions.

5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 05/30/02: A.III.1 through A.III.4. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day combined emission and usage limitations for VOC.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all blocks of time during which the thermal oxidizer combustion zone temperature does not comply with the temperature limitation specified in section A.III.1.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply the allowable range specified above.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.IV.1 through A.IV.5. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:

2.75 lbs/hr of particulates from the thermal oxidizer

0.12 lb/hr of SO2 from the thermal oxidizer
6.0 lbs/hr of NOx from the thermal oxidizer

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the following Test Methods: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for SO2, Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A; for NOx, Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A.

1.b Emission Limitations:

40.2 lbs/hr of VOC from the thermal oxidizer

VOC emissions vented to the thermal oxidizer shall be controlled by at least 98% at maximum operating capacity.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the Test Methods as described in section A.V.2.

1.c Emission Limitations:

12 tpy of particulates from the thermal oxidizer
0.53 tpy of SO2 from the thermal oxidizer
26.3 tpy of NOx from the thermal oxidizer

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the appropriate hourly allowable emission limitation by the actual annual hours of operation, and then dividing by 2000 lbs/hr.

1.d Emission Limitation:

VOC emissions from this emissions unit shall not exceed 17.0 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This

program shall include calculations using monitoring and record keeping as described in section A.III.2 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 25 or 25A.

1.e Emission Limitation:

VOC vent emissions from this emissions unit shall not exceed 23.2 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping specified in section A.III.2.

1.f Emission Limitation:

23.2 tons of VOC per rolling, 365-day period for emissions units P003, P022, P014, and P023, combined

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping as described in section A.III.2 using the summation of the emissions for emissions units P003, P022, P014, and P023, combined.

1.g Emission Limitation:

There shall be no visible emissions in excess of 10% opacity as a 6-minute average in any 60-minute observation period.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

2. The following emissions units vent to the RTO: P003 (performance foams line #1), P022 (performance foams line #2), P014 (performance foams line #3), P023 (performance foams recycle line), P017 (curing warehouse), and P018 (curing warehouse).

The permittee shall conduct, or have conducted, emission testing for the RTO in accordance with the following requirements:

a. The emission testing shall be conducted within 12 months prior to expiration of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for VOC and the control efficiency limitation for VOC.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for VOC, Methods 1 through 4 and Method 25A of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the control efficiency limitation for VOC is specified below. 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 all the above-mentioned emissions unit are operating at or near their maximum capacities, unless otherwise specified or approved by the Portsmouth local air agency.

e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(C). 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.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth 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 Portsmouth local air agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth 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 emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth 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 Portsmouth local air agency.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.V.1 and A.V.2. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating

permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## 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 |
|---|---|---|
| performance foams recycle line controlled by a thermal oxidizer | | |

**2. Additional Terms and Conditions**

None

## II. Operational Restrictions

None

## III. Monitoring and/or Recordkeeping

1. The permit to install for this emissions unit [P023] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the “worst case” pollutant(s):

   Pollutant: VOC (blowing agent)
   TLV(ug/m3): 177055
   Maximum Hourly Emission Rate (lbs/hr): 40.2*
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 224.64
   MAGLC (ug/m3): 42156

* This was modeled for emissions units P003, P022, P023, P014, P017, and P018, combined.

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

   a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

   b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

   c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

   The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

   a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

   b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

   c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Acrylonitrile Storage Tank (T003)
Activity Description: Acrylonitrile Storage Tank (Styron TM) - 110,000 gallons pressurized storage tank

## 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 |
|---|---|---|
| acrylonitrile storage tank | OAC rule 3745-31-05(A)(3) (PTI 07-063) | none |
| | OAC rule 3745-21-07(D)(1) | See A.I.2.a below. |
| | 40 CFR Part 63, Subpart JJJ | See A.I.2.b below. |

**2. Additional Terms and Conditions**

2.a No person shall place, store, or hold in any stationary tank, reservoir or other container of more than sixty-five thousand gallons capacity any volatile photochemically reactive material unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere.

2.b For each Group 1 storage vessel 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 permittee 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.

i. The permittee who elects to use a closed vent system and control device, shall comply with the requirements specified in A.I.2.b.i.(1) through A.I.2.b.i.(5).

(1) Except as provided in A.I.2.b.i.(2), the control device shall be designed and operated to reduce inlet emissions of total organic HAP by 95 percent or greater.

(2) If the permittee can demonstrate that a control device installed on a storage vessel on or before March 29, 1995 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 A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable, shall not exceed 240 hours per year.

(4) The specifications and requirements in A.I.2.b.i.(1) and A.I.2.b.i.(2) for control devices do not apply during periods of planned routine maintenance.

(5) The specifications and requirements in A.I.2.b.i.(1) and A.I.2.b.i.(2) for control devices do not apply during a control system malfunction.

(6) The permittee may use a combination of control devices to achieve the required reduction of total organic hazardous air pollutants specified in A.I.2.b.i.(1). The permittee may use a combination of control devices installed on a storage vessel on or before March 29, 1995 to achieve the required reduction of total organic hazardous air pollutants specified in A.I.2.b.i.(2).

2.c The permittee shall comply with the leak inspection provisions, as applicable, in A.VI.1 below.

## II. Operational Restrictions

None

## III. Monitoring and/or Recordkeeping

1. Each permittee 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.

2. The permittee who elects to comply with A.I.2.b.i.(1) or A.I.2.b.i.(2) shall keep in a readily accessible location the records specified in A.III.2.a and A.III.2.b.

a. A record of the measured values of the parameters monitored in accordance with A.III.3.a.v.

b. A record of the planned routine maintenance performed on the control device including the duration of each time the control device does not meet the specifications of A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable, due to the planned routine maintenance. Such a record shall include the information specified in A.III.2.b.i and A.III.2.b.ii.

i. The first time of day and date the requirements of A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable, were not met at the beginning of the planned routine maintenance; and

ii. The first time of day and date the requirements of A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable, were met at the conclusion of the planned routine maintenance.

3. To demonstrate compliance with the requirements of A.I.2.b.i for a storage vessel equipped with a closed vent system and control device using a control device other than a flare, the permittee shall comply with the requirements in A.III.3.a through A.III.3.g, except as provided in A.III.3.h.

a. The permittee shall either prepare a design evaluation, which includes the information specified in A.III.3.a.i, or submit the results of a performance test as described in A.III.3.a.ii.

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 A.III.3.a.i.(1) through A.III.3.a.i.(5), as applicable.

(1) If the control device receives vapors, gases or liquids, other than fuels, from emission points other than storage vessels subject to 40 CFR Part 63, Subpart JJJ, the efficiency demonstration is to include consideration of all vapors, gases, and liquids, other than fuels, received by the control device.

(2) If an enclosed combustion device with a minimum residence time of 0.5 second and a minimum temperature of 760 degrees C is used to meet the emission reduction requirement specified in A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable, documentation that those conditions exist is sufficient to meet the requirements of A.III.3.a.i.

(3) Except as provided in A.III.3.a.i.(2) for thermal incinerators, the design evaluation shall include the auto ignition 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.

(4) 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.

(5) 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 the requirements is for another emission unit, the performance test required for those requirements is acceptable for demonstrating compliance with A.I.2.b.i. The permittee is not required to prepare a design evaluation for the control device as described in A.III.3.a.i if the performance test meets the criteria specified in A.III.3.a.ii.(1) below.

(1) The performance test demonstrates that the control device achieves greater than or equal to the required control efficiency specified in of A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable; and

(2) The performance test shall be submitted as part of the Notification of Compliance Status.

b. The permittee shall submit as part of the Notification of Compliance Status, a monitoring plan containing the information specified in A.III.3.b.i and either A.III.3.b.ii or A.III.3.b.iii.

i. A description of the parameter to be monitored to ensure that the control device is being properly operated and maintained, an explanation of the criteria used for selection of the parameter, and the frequency with which monitoring will be performed; and either

ii. The documentation specified in A.III.3.a.i if the permittee elects to prepare a design evaluation; or

iii. The information specified in A.III.3.b.iii.(1) and A.III.3.b.iii.(2) if the permittee elects to submit the results of a performance test.

(1) Identification of the storage vessel and control device for which the performance test is being submitted, and

(2) Identification of the emission point that share the control device with the storage vessel and for which the performance test will be conducted.

c. The permittee shall submit, as part of the Notification of Compliance Status, the information specified in A.III.3.c.i and, if applicable, A.III.3.c.ii.

   i. The level for each monitoring parameter identified in the monitoring plan. The specified level shall represent the conditions for which the control device is being properly operated and maintained.

   ii. Results of the performance test described in A.III.3.a.ii.

d. The permittee shall demonstrate compliance with the requirements of A.I.2.b.i.(1) or A.I.2.b.i.(2) (planned routine maintenance of a control device, during which the control device does not meet the specifications of A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable, shall not exceed 240 hours per year by including in each Periodic Report the information specified in A.IV.4.a.

e. The permittee shall monitor the parameters specified in the Notification of Compliance Status and shall operate and maintain the control device such that the monitored parameters remain within the ranges specified in the Notification of Compliance Status.

f. Except as provided in A.III.3.g, each closed vent system shall be inspected as specified in A.VI.1. The initial and annual inspections required by A.VI.1 shall be performed during filling of the storage vessel.

g. For any fixed roof tank and closed vent system that are operated and maintained under negative pressure, the permittee is not required to comply with the requirements specified in A.VI.1.

h. A design evaluation or performance test is not required, if the permittee uses a combustion device meeting the criteria in A.III.3.h.i through A.III.3.h.iv.

   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 permittee:

      (1) Has been issued a final permit under 40 CFR Part 270 and complies with the requirements of 40 CFR Part 266, Subpart H; or

      (2) Has certified compliance with the interim status requirements of 40 CFR Part 266, Subpart H.

   iii. A hazardous waste incinerator for which the permittee 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.

## IV. Reporting Requirements

1. For each Group 1 storage vessel, the permittee shall comply with the following:

   a. The permittee shall submit a Notification of Compliance Status and shall submit as part of the Notification of Compliance Status the information specified in A.IV.3.

   b. The permittee shall submit Periodic Reports and shall submit as part of the Periodic Reports the information specified in A.IV.4.

2. The permittee who elects to comply with A.I.2.b.i by using a closed vent system and a control device other than a flare shall submit, as part of the Monitoring Plan, the information specified in A.III.3.b.i and the information specified in either A.III.3.b.ii or A.III.3.b.iii.

3. The permittee who elects to comply with A.I.2.b.i by using a closed vent system and a control device shall submit, as part of the Notification of Compliance Status, the following:

   a. If a control device other than a flare is used, the permittee shall submit the information specified in A.III.3.c.i.

4. The permittee who elects to comply with A.I.2.b.i by installing a closed vent system and control device shall submit, as part of the next Periodic Report, the information specified in A.IV.4.a and A.IV.4.b.

   a. As required by A.III.3.d, the Periodic Report shall include the information specified in A.IV.4.a.i and A.IV.4.a.ii for those planned routine maintenance operations that would require the control device not to meet the requirements of A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable.

      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 shall 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 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 A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable, due to planned routine maintenance.

   b. 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 in accordance with A.III.3.c.i. The description shall include the information specified in A.IV.4.b.i and A.IV.4.b.ii.

i. identification of the control device for which the measured parameters were outside of the established ranges; and

ii. the cause for the measured parameters to be outside of the established ranges.

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

1. The permittee shall comply with the requirements of A.VI.2 through A.VI.10 for each vapor collection system, closed-vent system, fixed roof, cover, or enclosure required to comply with this section.

   If a closed-vent system is also subject to the requirements of another Organic Hazardous Leak Detection and Repair Program, the permittee shall comply with the provisions of that program and is exempt from the requirements of A.VI.1.

2. a. If the vapor collection system or closed vent system is constructed of hard-piping, the permittee shall:

   i. conduct an initial inspection according to the procedures in A.VI.3; and

   ii. conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

   b. If the vapor collection system or closed vent system is constructed of ductwork, the permittee shall:

   i. conduct an initial inspection according to the procedures in A.VI.3;

   ii. conduct annual inspections according to the procedures in A.VI.3; and

   iii. conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

3. Each vapor collection system and closed vent system shall be inspected according to the procedures specified in A.VI.3.a through A.VI.3.f.

   a. Inspections shall be conducted in accordance with Method 21 of 40 CFR Part 60, Appendix A.

b. i. Except as provided in A.VI.3.b.ii, 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 process fluid not each individual volatile organic compound in the stream. For process streams that contain nitrogen, air, or other inerts which are not organic hazardous air pollutants or volatile organic compounds, the average stream response factor shall be calculated on an inert-free basis.

ii. If no instrument is available at the plant site that will meet the performance criteria specified in A.VI.3, the instrument readings may be adjusted by multiplying by the average response factor of the process fluid, calculated on an inert-free basis as described in A.VI.3.

c. 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.

d. Calibration gases shall be as follows:

i. Zero air (less than 10 parts per million hydrocarbon in air); and

ii. Mixtures of methane in air at a concentration less than 10,000 parts per million. A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in section 3.1.2 of Method 21. In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.

e. The permittee may elect to adjust or not adjust instrument readings for background. If the permittee elects to not adjust readings for background, all such instrument readings shall be compared directly to the applicable leak definition to determine whether there is a leak. If the permittee elects to adjust instrument readings for background, the permittee shall measure background concentration using the procedures in 40 CFR Part 63, Subpart H, section 180(b) and (c). The permittee shall subtract the background reading from the maximum concentration indicated by the instrument.

f. The arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared with 500 parts per million for determining compliance.

4. Leaks, as indicated by an instrument reading greater than 500 parts per million above background or by visual inspections, shall be repaired as soon as practicable, except as provided in A.VI.5.

a. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

b. Repair shall be completed no later than 15 calendar days after the leak is detected, except as provided in A.VI.4.c.

c. For leaks found in vapor collection systems used for transfer operations, repairs shall be completed no later than 15 calendar days after the leak is detected or at the beginning of the next transfer loading operation, whichever is later.

5. Delay of repair of a vapor collection system, closed vent system, fixed roof, cover, or enclosure for which leaks have been detected is allowed if the repair is technically infeasible without a shutdown, or if the permittee 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 shutdown.

6. For each vapor collection system or closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the permittee shall comply with either A.VI.6.a. or A.VI.6.b, except as provided in A.VI.6.c.

a. Install, calibrate, maintain, and operate a flow indicator that determines whether vent stream flow is present at least once every 15 minutes. The flow indicator shall be installed at the entrance to any bypass line.; or

b. 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 the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.

c. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to this paragraph.

7. Any parts of the vapor collection system, closed vent system, fixed roof, cover, or enclosure that are designated, as described in A.VI.9, as unsafe to inspect are exempt from the inspection requirements of A.VI.1 if:

a. the permittee 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 A.VI.1; and

b. the permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

8. Any parts of the vapor collection system or closed vent system that are designated, as described in A.VI.9, as difficult to inspect are exempt from the inspection requirements of A.VI.1 if:

a. the permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

b. the permittee has a written plan that requires inspection of the equipment at least once every 5 years.

9. The permittee shall record the information specified in A.VI.9.a through A.VI.9.f.

a. Identification of all parts of the vapor collection system, closed vent system, fixed roof, cover, or enclosure that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

b. Identification of all parts of the vapor collection system, closed vent system, fixed roof, cover, or enclosure that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

c. For each vapor collection system or closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the permittee shall keep a record of the information specified in either A.VI.9.c.i or A.VI.9.c.ii.

i. Hourly records of whether the flow indicator specified under A.VI.6.a was operating and whether a diversion was detected at any time during the hour, as well as records of the times of all periods when the vent stream is diverted from the control device or the flow indicator is not operating.

ii. Where a seal mechanism is used to comply with A.VI.6.b, hourly records of flow are not required. In such cases, the permittee shall record whether the monthly visual inspection of the seals or closure mechanisms has been done, and shall record the occurrence of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type configuration has been checked out, and records of any car-seal that has broken.

d. For each inspection during which a leak is detected, a record of the information specified in A.VI.9.d.i through A.VI.9.d.viii:

i. the instrument identification numbers; operator name or initials; and identification of the equipment;

ii. the date the leak was detected and the date of the first attempt to repair the leak;

iii. maximum instrument reading measured by the method specified in A.VI.4 after the leak is successfully repaired or determined to be nonrepairable;

iv. ``repair delayed'' and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak;

v. the name, initials, or other form of identification of the permittee whose decision it was that repair could not be effected without a shutdown;

vi. the expected date of successful repair of the leak if a leak is not repaired within 15 calendar days;

vii. dates of shutdowns that occur while the equipment is unrepaired; and

viii. the date of successful repair of the leak.

e. For each inspection conducted in accordance with A.VI.3 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.

f. For each visual inspection conducted in accordance with A.VI.2.a.i 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.

10. The permittee shall submit with the Periodic reports required by this permit, the information specified in A.VI.10.a through A.VI.10.c:

a. the information specified in A.VI.9.d;

b. reports of the times of all periods recorded under A.VI.9.c.i when the vent stream is diverted from the control device through a bypass line; and

c. reports of all periods recorded under A.VI.9.c.ii in which the seal mechanism is broken, the bypass line valve position has changed, or the key to unlock the bypass line valve was checked out.

**Emissions Unit:** **Acrylonitrile Storage Tank (T003)**

## 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 Recordkeeping

None

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Marine Styrene Storage Tank B-1 (T004)
Activity Description: Marine Styrene Storage Tank B-1(StyronTM) - 750,000 gallons fixed roof storage tank

### 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 |
|---|---|---|
| marine styrene storage tank B-1 | none | none<br><br>See A.I.2.a and A.I.2.b below. |

**2. Additional Terms and Conditions**

2.a The provisions of 40 CFR Part 63, Subpart JJJ do not apply to storage vessels containing styrene at existing affected sources as stated in 40 CFR 63.1314(d).

2.b This facility is not located in a Priority I area as defined in OAC rule 3745-21-06 and this emissions unit is not a "new source" as defined in OAC rule 3745-15-01; therefore, the emission limitations and/or control measures in OAC rule 3745-21-07 do not apply to this emissions unit.

### II. Operational Restrictions

None

### III. Monitoring and/or Recordkeeping

None

**Emissions Unit:** **Marine Styrene Storage Tank B-1 (T004)**

## 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 Recordkeeping

None

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

## Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Marine Styrene Storage Tank B-2 (T005)
Activity Description: Marine Styrene Storage Tank B-2 (StyronTM) - 750,000 gallons fixed roof storage tank

### 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 |
|---|---|---|
| marine styrene storage tank B-2 | none | none<br><br>See A.I.2.a and A.I.2.b below. |

**2. Additional Terms and Conditions**

2.a The provisions of 40 CFR Part 63, Subpart JJJ do not apply to storage vessels containing styrene at existing affected sources as stated in 40 CFR 63.1314(d).

2.b This facility is not located in a Priority I area as defined in OAC rule 3745-21-06 and this emissions unit is not a "new source" as defined in OAC rule 3745-15-01; therefore, the emission limitations and/or control measures in OAC rule 3745-21-07 do not apply to this emissions unit.

### II. Operational Restrictions

None

### III. Monitoring and/or Recordkeeping

None

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None

**Emissions Unit:** **Marine Styrene Storage Tank B-2 (T005)**

## 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 Recordkeeping

None

## IV. Reporting Requirements

None

## V. Testing Requirements

None

## VI. Miscellaneous Requirements

None