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

12/03/03

CERTIFIED MAIL

RE: Preliminary Proposed Title V
Chapter 3745-77 permit

07-73-00-0080
Sunoco Inc (R&M)
Barry Elswick
1019 Haverhill-Ohio Furnace Road
Haverhill, OH 45636-0127

Dear Barry Elswick:

Enclosed is the Ohio EPA Preliminary Proposed Title V permit that was issued in draft form on 08/18/03. The comment period for the Draft permit has ended. We are now ready to submit this permit to USEPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written, you now have the opportunity to raise your concerns. **In order to facilitate our review of all the comments or concerns you may have with the enclosed preliminary proposed permit, please provide a hand marked-up copy of the permit showing the changes you think are necessary, along with any additional summary comments, within fourteen (14) days from your receipt of this letter to:**

Ohio EPA, Division of Air Pollution Control
Jim Orlemann, Manager, Engineering Section
Preliminary Proposed Title V Permit Correspondence
122 South Front Street
Columbus, Ohio 43215

and

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

Also, if you believe that it is necessary to have an informal conference with us, then, as part of your written comments, you should request a conference concerning the written comments.

If comments are not submitted within fourteen (14) days of your receipt of this letter, we will forward the proposed permit to USEPA for approval. All comments received will be carefully considered before proceeding to the proposed permit.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

cc: Portsmouth Air Pollution Group
File, DAPC PMU

State of Ohio Environmental Protection Agency

PRELIMINARY PROPOSED TITLE V PERMIT

Issue Date: 12/03/03	Effective Date: To be entered upon final issuance	Expiration Date: To be entered upon final issuance

This document constitutes issuance of a Title V permit for Facility ID: 07-73-00-0080 to:

Sunoco Inc (R&M)
1019 Haverhill-Ohio Furnace Road
Haverhill, OH 45636-0127

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

B004 (2001-UA)
Natural Gas,Oil or By-product Fuel Fired Boiler

B005 (2001-UB)
Natural Gas,Oil or By-product Fuel Fired Boiler

B006 (2001-UC)
Natural Gas,Oil or By-product Fuel Fired Boiler

B009 (2001-UD)
Natural Gas & Oil Fired Boiler

B010 (2001-UE)
Natural Gas,Oil or By-product Fuel Fired Boiler

B014 (2001-UF)
Natural Gas Fired Boiler with low NOx burner

F001 (LC02/LC03)
Poly/Epoxy BPA Railcar Loading

F002 (LS01/LS02)
Poly/Epoxy BPA Bagging Operations and Vacuum Sweeper System

F003 (LT03)
Poly BPA Truck Loading

F004 (LT06)
BPA Powerliner Baghouse

J004 (LC01)
Phenol/Acetone/AMS Railcar Loading

J006 (LT01)
Phenol/Acetone/AMS Truck Loading

J008 (LC04)
Cumene Railcar Unloading

P001 (Cumene Oxidation)
Cumene Oxidation Plant

P003 (BPA Plant)
Bisphenol-A Production Plant

P004 (Aniline Plant)
Aniline Production Plant (modified in 5/95 for Coproduction)

P006 (AMS Hydrogenation)
AMS Hydrogenation Plant

P007 (Phenol II Plant)
Phenol II Production Plant

P008 (Phenol I Plant)
Phenol I Production Plant

P009 (Phenol WWT)
Phenol Waste Water Treatment

P012 (Phenol III Plant)
Phenol III Production Plant

T022 (2003-F)
Light Hydrocarbon Fuel Storage Tank

T023 (2101-FA)
Cumene Storage Tank

T024 (2101-FB)
Cumene Storage Tank

T025 (2102-FA)
Phenol Storage Tank

T026 (2102-FB)
Phenol Storage Tank

T029 (2104-F)
Heavy Hydrocarbons Storage Tank

T030 (2105-F)
Heavy Hydrocarbons Storage Tank

T033 (2101-FC)
Cumene Storage Tank

T034 (2102-FC)
Phenol Storage Tank

T039 (2003-FA)
Cumene Storage Tank (formerly tank number TK-1701)

T045 (F-91A)
Aniline Storage Tank

T046 (F-91B)
Aniline Storage Tank

T059 (3510-F)
Alpha Methyl Styrene Hydrogenation Feed Tank

T063 (2108-F)
Heavy Hydrocarbons Storage Tank

T064 (326-F)
Hydrogenation AMS 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 3745-77-04(A) 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

_____

Christopher Jones
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 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 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 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 reports shall satisfy the requirements (in part) 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. OAC rule 3745-77-07(A)(3)(c) is not fully satisfied until the permittee addresses all other deviations of the federally enforceable requirements specified in the permit.

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 overrides 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 the requirements (in part) 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:**

Written reports that identify all other deviations of the federally enforceable requirements contained in this permit, including the 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 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.

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 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))

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.

(Authority for term: OAC rule 3745-77-07(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 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. 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

Each insignificant activity 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 by the responsible official of the date on which the emissions unit was permanently shut down. Authorization to operate the affected part or activity of the stationary source shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

If 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 monitoring, record keeping, reporting, or testing 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.

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 quarterly, i.e., 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 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;

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; and

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

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable Section

1. [40 CFR Part 63, Subpart F]
Applicability and general provisions for terms and conditions A.2 and A.3 of Part II - Facility Specific Terms and Conditions

For the purposes of sections A.1, A.2, and A.3 of Part II - Specific Facility Terms and Conditions the 8 chemical manufacturing process units (CMPU) at this facility are listed below.

Cumene Oxidation CMPU
Bisphenyl A CMPU
Aniline / Diphenylamine CMPU
CHP Refining CMPU
Alpha-Methylstyrene Hydrogenation CMPU
Phenol II CMPU
Phenol I CMPU
Phenol III CMPU

1a. [40 CFR 63.100(b)]
The provisions of A.1, A.2 and A.3 apply to chemical manufacturing process units (CMPU) that meet all the criteria specified in A.1.a.i, A.1.a.ii, and A.1.a.iii below:

i [40 CFR 63.100(b)(1)(i)]
manufacture as a primary product one or more of the chemicals listed in Table 1 of A.1.p;

ii. [40 CFR 63.100(b)(2)]
use as a reactant or manufacture as a product, or co-product, one or more of the organic hazardous air pollutants (HAP) listed in Table 2 of A.1.p; and

iii. [40 CFR 63.100(b)(3)]
located at a plant site that is a major source.

1b. [40 CFR 63.100(d)]
The primary product of a CMPU shall be determined according to the procedures specified in A.1.b.i and A.1.b.ii.

i [40 CFR 63.100(d)(1)]
If a CMPU produces more than one intended chemical product, the product with the greatest annual design capacity on a mass basis determines the primary product of the process.

ii. [40 CFR 63.100(d)(2)]
If a CMPU has two or more products that have the same maximum annual design capacity on a mass basis and if one of those chemicals is listed in Table 1 of A.1.p, then the listed chemical is considered the primary product and the CMPU is subject to A.1, A.2, and A.3. If more than one of the products is listed in Table 1 of A.1.p, then the permittee may designate as the primary product any of the listed chemicals and the CMPU is subject to A.1, A.2 and A.3.

iii. [40 CFR 63.100(d)(3)]
For CMPUs that are designed and operated as flexible operation units producing one or more chemicals listed in Table 1, the primary product shall be determined for existing sources based on the expected utilization for the five years following April 22, 1994 and for new sources based on the expected utilization for the first five years after initial start-up.

(1) [40 CFR 63.100(d)(3)(i)]
If the predominant use of the flexible operation unit, as described in (a) and (b) below, is to produce one or more chemicals listed in Table 1, then the flexible operation unit shall be subject to the provisions of sections A.1, A.2, and A.3.

(a) If the flexible operation unit produces one product for the greatest annual operating time, then that product shall represent the primary product of the flexible operation unit.

(b) If the flexible operation unit produces multiple chemicals equally based on operating time, then the product with the greatest annual production on a mass basis shall represent the primary product of the flexible operation unit.

(2) [40 CFR 63.100(d)(3)(ii)]
The determination of applicability of section A.1 to CMPUs that are designed and operated as flexible operation units shall be reported as part of an operating permit application.

1c. [40 CFR 63.100(e)]
The source to which A.1, A.2 and A.3 applies is the collection of the process vents; storage vessels; transfer racks; waste management units; maintenance wastewater; heat exchange systems; equipment identified in A.2.z; and pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, surge control vessels, and bottoms receivers that are associated with the collection of all CMPUs at a major source that meet the criteria specified in A.1.a.i through A.1.a.iii. The source also includes equipment required by, or utilized as a method of compliance with A.1, A.2 or A.3 which may include control devices and recovery devices.

i [40 CFR 63.100(e)(1)]
A.1 applies to maintenance wastewater and heat exchange systems within a source that is subject to A.1.

ii. [40 CFR 63.100(e)(2)]
A.1 and A.2 apply to process vents, storage vessels, transfer racks, equipment identified in A.2.z, and wastewater streams and associated treatment residuals within a source that is subject to A.1.

iii. [40 CFR 63.100(e)(3)]
A.1 and A.3 apply to pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, surge control vessels, and bottoms receivers within a source that is subject to A.1.

1d. [40 CFR 63.100(f)]
The source includes the emission points listed in A.1.d.i through A.1.d.xi, but those emission points are not subject to the requirements of A.1, A.2, and A.3 or the requirements of 40 CFR Part 63, Subpart A.

i Equipment that is located within a CMPU that is subject to A.1 but the equipment does not contain organic HAPs.

ii. Storm water from segregated sewers;

iii. Water from fire-fighting and deluge systems in segregated sewers;

iv. Spills;

v. Water from safety showers;

vi. Water from testing of deluge systems;

vii. Water from testing of firefighting systems;

viii. Vessels storing organic liquids that contain organic HAPs only as impurities;

ix. Loading racks, loading arms, or loading hoses that only transfer liquids containing organic HAPs as impurities;

x. Loading racks, loading arms, or loading hoses that vapor balance during all loading operations; and

xi. Equipment that is intended to operate in organic HAP service for less than 300 hours during the calendar year.

1e. [40 CFR 63.100(g)]
The permittee shall follow the procedures specified in section A.1.e.i through A.1.e.iv to determine whether a storage vessel is part of the source to which A.1 applies.

i [40 CFR 63.100(g)(1)(i) & (g)(1)(ii)]
Where a storage vessel is dedicated to a CMPU, the storage vessel shall be considered part of that CMPU. If the CMPU is subject to A.1 according to the criteria specified in A.1.a, then the storage vessel is part of the source to which A.1 applies. If the CMPU is not subject to A.1 according to the criteria specified in A.1.a, then the storage vessel is not part of the source to which A.1 applies.

ii. [40 CFR 63.100(g)(2)]
If a storage vessel is not dedicated to a single CMPU, then the applicability of A.1 and A.2 shall be determined according to (1) through (3) below:

(1) [40 CFR 63.100(g)(2)(i)]
If a storage vessel is shared among CMPUs and one of the process units has the predominant use, then the storage vessel is part of that CMPU.

(2) [40 CFR 63.100(g)(2)(ii)]
If a storage vessel is shared among CMPUs so that there is no single predominant use, and at least one of those CMPUs is subject to A.1, the storage vessel shall be considered to be part of the CMPU that is subject to A.1. If more than one CMPU is subject to A.1, the permittee may assign the storage vessel to any of the CMPUs subject to A.1.

(3) [40 CFR 63.100(g)(2)(iv)]
If there is a change in the material stored in the storage vessel, the permittee shall reevaluate the applicability of A.1 to the vessel.

iii. [40 CFR 63.100(g)(3)]
Where a storage vessel is located in a tank farm, and receives material from or sends materials to more than one CMPUs, the applicability of A.1 and A.2 shall be determined according to the provisions in (1) through (4) below:

(1) [40 CFR 63.100(g)(3)(i)]
The storage vessel may only be assigned to a CMPU 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 CMPU, an intervening storage vessel means a storage vessel connected by hard-piping to the CMPU and to the storage vessel in the tank farm so that product or raw material entering or leaving

the CMPU flows into (or from) the intervening storage vessel and does not flow directly into (or from) the storage vessel in the tank farm.

(2) [40 CFR 63.100(g)(3)(ii)]
If there is no CMPU that meets the criteria of A.1.e.iii.(1) with respect to a storage vessel, A.1 and A.2 does not apply to the storage vessel.

(3) [40 CFR 63.100(g)(3)(iii)]
If there is only one CMPU that meets the criteria of A.1.e.iii.(1) with respect to a storage vessel, the storage vessel shall be assigned to that CMPU. Applicability of A.1 and A.2 to the storage vessel shall then be determined according to the provisions of A.1.a.

(4) [40 CFR 63.100(g)(3)(iv)]
If there are two or more CMPUs that meet the criteria of A.1.e.iii.(1) with respect to a storage vessel, the storage vessel shall be assigned to one of those CMPUs according to the provisions of A.1.e.ii. The predominant use shall be determined among only those CMPUs that meet the criteria of A.1.e.iii.(1). Applicability of A.1 to the storage vessel shall then be determined according to the provisions of A.1.a.

iv. [40 CFR 63.100(g)(4)]
If the storage vessel begins receiving material from (or sending material to) another CMPU, or ceasing to receive material from (or send material to) a CMPU, or if the applicability of A.1 and A.2 to a storage vessel has been determined according to A.1.e.ii.(1) through A.1.e.ii.(3) and there is a change so that the predominant use may reasonably have changed, the permittee shall reevaluate the applicability of A.1 and A.2 to the storage vessel.

1f. [40 CFR 63.100(h)]
The permittee shall follow the procedures specified in A.1.f.i and A.1.f.ii to determine whether the arms and hoses in a loading rack are part of the source to which A.1 applies.

i [40 CFR 63.100(h)(1), (h)(1)(i), & (h)(1)(ii)]
Where a loading rack is dedicated to a CMPU, the loading rack shall be considered part of that specific CMPU. If the CMPU is subject to A.1 according to the criteria specified in A.1.a and the loading rack does not meet the criteria specified in A.1.d.ix and A.1.d.x, then the loading rack is considered a transfer rack and is part of the source to which A.1 applies. If the CMPU is not subject to A.1 according to the criteria specified in A.1.a, then the loading rack is not considered a transfer rack and is not a part of the source to which A.1 applies.

ii. [40 CFR 63.100(h)(2)]
If a loading rack is shared among CMPUs, then the applicability of A.1 and A.2 shall be determined at each loading arm or loading hose according to the provisions in A.1.f.ii.(1) through A.1.f.ii.(3) below:

(1) [40 CFR 63.100(h)(2)(i)]
Each loading arm or loading hose that is dedicated to the transfer of liquid organic HAPs listed in Table 2 of A.1.p from a CMPU to which A.1 applies is part of that CMPU and is part of the source to which A.1 applies unless the loading arm or loading hose meets the criteria specified in A.1.d.ix or A.1.d.x.

(2) [40 CFR 63.100(h)(2)(ii), (h)(2)(ii)(A), & (h)(2)(ii)(B)]
If a loading arm or loading hose is shared among CMPUs, and one of the CMPUs provides the greatest amount of the material that is loaded by the loading arm or loading hose, then the loading arm or loading hose is part of that CMPU. If the CMPU is subject to A.1 according to the criteria specified in A.1.a, then the loading arm or loading hose is part of the source to which A.1 applies unless the loading arm or loading hose meets the criteria specified in A.1.d.ix or A.1.d.x. If the CMPU is not subject to A.1 according to the criteria specified in A.1.a, then the loading arm or loading hose is not part of the source to which A.1 applies.

(3) [40 CFR 63.100(h)(2)(iii)]
If a loading arm or loading hose is shared among CMPUs so that there is no single predominant use as described in A.1.f.ii.(2) and at least one of those CMPUs is subject to A.1, then the loading arm or hose is part of the CMPU that is subject to A.1. If more than one of the CMPUs is subject to A.1, the permittee may assign the loading arm or loading hose to any of the CMPUs subject to A.1.

iii. [40 CFR 63.100(h)(3)]
If a loading rack that was dedicated to a single CMPU begins to serve another CMPU, or if applicability was determined under the provisions of A.1.f.ii.(1) through A.1.f.ii.(3) and there is a change so that the predominant use may reasonably have changed, the permittee shall reevaluate the applicability of A.1 to the loading rack, loading arm, or loading hose.

1g. [40 CFR 63.100(i)]
The permittee shall follow the procedures specified in A.1.g.i through A.1.g.iv to determine whether the vent(s) from a distillation unit is part of the source to which A.1 applies.

i [40 CFR 63.100(i)(1), (i)(1)(i), & (i)(1)(ii)]
Where a distillation unit is dedicated to a CMPU, the distillation column shall be considered part of that CMPU. If the CMPU is subject to A.1 according to the criteria specified in A.1.a, then the distillation unit is part of the source to which A.1 applies. If the CMPU is not subject to A.1 according to the criteria specified in A.1.a, then the distillation unit is not part of the source to which A.1 applies.

ii. [40 CFR 63.100(i)(2)(iii)]
If a distillation unit is shared among CMPUs so that there is no single predominant use, and at least one of those CMPUs is subject to A.1, the distillation unit shall be assigned to the CMPU that is subject to A.1. If more than one CMPU is subject to A.1, the permittee may assign the distillation unit to any of the CMPUs subject to A.1.

iii. [40 CFR 63.100(i)(3)]
If the CMPU to which the distillation unit is assigned is subject to A.1, then each vent from the individual distillation unit shall be considered separately to determine whether it is a process vent. Each vent that is a process vent is part of the source to which A.1 applies.

iv. [40 CFR 63.100(i)(5)]
If a distillation unit that was dedicated to a single CMPU begins to serve another CMPU, or if applicability was determined under the provisions of A.1.g.iii and there is a change so that the predominant use may reasonably have changed, the permittee shall reevaluate the applicability of A.1 to the distillation unit.

1h. [40 CFR 63.100(k)]
Except as provided in A.1.i and A.1.j, sources subject to A.1, A.2, or A.3 are required to achieve compliance on or before the dates specified in A.1.h.i through A.1.h.v.

i [40 CFR 63.100(k)(1)(ii)]
New sources that commence construction after August 26, 1996 shall be in compliance with A.1, A.2, and A.3 upon initial start-up or by January 17, 1997, whichever is later.

ii. [40 CFR 63.100(k)(2)]
Existing sources shall be in compliance with A.1 and A.2 no later than the dates specified in (1) and (2) below:

(1) [40 CFR 63.100(k)(2)(i)]
Process vents, storage vessels, and transfer racks at an existing source shall be in compliance with the applicable sections of A.1 and A.2 no later than April 22, 1997.

(2) [40 CFR 63.100(k)(2)(ii)]
Heat exchange systems and maintenance wastewater shall be in compliance with the applicable sections of A.1, and equipment subject to A.2.z and process wastewater streams shall be in compliance with the applicable sections of A.1 and A.2 no later than April 22, 1999.

iii. [40 CFR 63.100(k)(3)]
Existing sources shall be in compliance with A.3 of this permit no later than the dates specified in (1) through (5) below, except as provided for in A.1.h.iv. The group designation for each process unit is indicated in Table 1 of A.1.p.

(1) Group I: October 24, 1994.

(2) Group II: January 23, 1995.

(3) Group III: April 24, 1995.

(4) Group IV: July 24, 1995.

(5) Group V: October 23, 1995.

iv. [40 CFR 63.100(k)(7)]
Existing sources shall be in compliance with the provisions of A.3.q no later than April 22, 1997.

v. [40 CFR 63.100(k)(9)]
All terms in A.1 or A.2 that define a period of time for completion of required tasks (e.g., weekly, monthly, quarterly, annual), unless specified otherwise in the section that imposes the requirement, refer to the standard calendar periods.

(1) [40 CFR 63.100(k)(9)(ii)]
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 sections (a) or (b) below, as appropriate.

(a) [40 CFR 63.100(k)(9)(ii)(A)]
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

(b) [40 CFR 63.100(k)(9)(ii)(B)]
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.

(2) [40 CFR 63.100(k)(9)(iii)]
In all instances where a section of A.1 or A.2 requires completion of a task during each of multiple successive periods, the permittee may perform the required task at any time during the specified period, provided the task is conducted at a reasonable interval after completion of the task during the previous period.

i. [40 CFR 63.100(l)(1)(i), (l)(1)(ii)(A), & (l)(1)(iii)]
If the permittee adds an additional CMPU meeting the criteria specified in A.1.a to the facility, the addition shall be subject to the requirements for a new source in A.1, A.2, and A.3 if it is an addition that meets the definition of construction, such construction commenced after December 31, 1992, and the addition 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 HAPs.

ii. [40 CFR 63.100(l)(2)(i) & (l)(2)(ii)(A)]
If any change is made to a CMPU subject to A.1, the change shall be subject to the requirements of a new source in A.1, A.2 and A.3 if it is a change that meets the definition of reconstruction, and such reconstruction commenced after December 31, 1992.

iii. [40 CFR 63.100(l)(3)]
If an additional CMPU is added to the facility or a change is made to a CMPU and the addition or change is determined to be subject to the new source requirements according to A.1.i.i or A.1.i.ii:

(1) [40 CFR 63.100(l)(3)(i)]
The new or reconstructed source shall be in compliance with the new source requirements of A.1, A.2 and A.3 upon initial start-up of the new or reconstructed source or by April 22, 1994, whichever is later; and

(2) [40 CFR 63.100(l)(3)(ii)]
The permittee of the new or reconstructed source shall comply with the reporting and record keeping requirements in A.1, A.2, and A.3 that are applicable to new sources. The applicable reports include, but are not limited to:

(a) The application for approval of construction or reconstruction which shall be submitted by the date specified in A.2.za.ii.(2);

(b) Changes that meet the criteria in A.2.za.viii, unless the information has been submitted in an operating permit application or amendment;

(c) The Notification of Compliance Status (NCS) as required by A.2.zb.ii for the new or reconstructed source;

(d) Periodic Reports and other reports as required by A.2.zb.iii and A.2.zb.iv; and

(e) Reports required by A.3.zc; and

(f) Reports and notifications required by sections of 40 CFR Part 63, Subpart A that are applicable to sections A.1, A.2, and A.3.

iv. [40 CFR 63.100(l)(4)]
If an additional CMPU is added to a plant site, or if an emission point is added to an existing CMPU, or if another deliberate operational process change creating an additional Group 1 emission point(s) is made to an existing CMPU, or if a surge control vessel or bottoms receiver becomes subject to A.3.q, or if a compressor becomes subject to A.3.k, and if the addition or change is not subject to the new source requirements as determined according to A.1.i.i or A.1.i.ii, the requirements in A.1.i.iv.(1) through A.1.i.iv.(3) shall apply. Examples of process changes include, but are not limited to, changes in production capacity, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. For purposes of this term and conditions and A.1.j, process changes do not include: process upsets, unintentional temporary process changes, and changes that are within the equipment configuration and operating conditions documented in the NCS required by A.2.zb.ii.

(1) [40 CFR 63.100(l)(4)(i)]
The added emission point(s) and any emission point(s) within the added or changed CMPU are subject to the requirements of A.1, A.2, and A.3 for an existing source;

(2) [40 CFR 63.100(l)(4)(ii)]
The added emission point(s) and any emission point(s) within the added or changed CMPU shall be in compliance with A.1, A.2, and A.3 by the dates specified in (a) or (b), as applicable.

(a) [40 CFR 63.100(l)(4)(ii)(A)]
If a CMPU is added to a plant site or an emission point(s) is added to an existing CMPU, the added emission point(s) shall be in

compliance upon initial start-up of the added CMPU or emission point(s) or by 3 years after April 22, 1994, whichever is later.

(b) [40 CFR 63.100(l)(4)(ii)(B)]
If a deliberate operational process change to an existing CMPU causes a Group 2 emission point to become a Group 1 emission point, if a surge control vessel or bottoms receiver becomes subject to A.3.q, or if a compressor becomes subject to A.3.k, the permittee shall be in compliance upon initial start-up or by 3 years after April 22, 1994, whichever is later, unless the permittee demonstrates to the USEPA Region V-Administrator that achieving compliance will take longer than making the change. If this demonstration is made to the USEPA Region V-Administrator's satisfaction, the permittee shall follow the procedures in A.1.j to establish a compliance date.

(3) [40 CFR 63.100(l)(4)(iii)]
The permittee of a CMPU or emission point that is added to a plant site and is subject to the requirements for existing sources shall comply with the reporting and record keeping requirements of A.1, A.2, and A.3 that are applicable to existing sources, including, but not limited to, the reports listed in A.1.i.iv.(3)(a) through A.1.i.iv.(3)(e). A change to an existing CMPU shall be subject to the reporting requirements for existing sources, including but not limited to, the reports listed in A.1.i.iv.(3)(a) through A.1.i.iv.(3)(e) if the change meets the criteria specified in A.2.h.vii, A.2.h.viii, A.2.h.ix, or A.2.h.x for process vents or the criteria in section A.2.za.viii. The applicable reports include, but are not limited to:

(a) Reports specified in A.2.zb.viii, unless the information has been submitted in an operating permit application or amendment;

(b) The NCS as required by A.2.zb.ii for the emission points that were added or changed;

(c) Periodic Reports and other reports as required by A.2.zb.iii and A.2.zb.iv;

(d) Reports required by A.3.zc; and

(e) Reports and notifications required by sections of 40 CFR Part 63, Subpart A that are applicable to sections A.1, A.2, and A.3.

1j. [40 CFR 63.100(m)]
If a change that does not meet the criteria in A.1.i is made to a CMPU subject to A.1 and A.2, and the change causes a Group 2 emission point to become a Group 1 emission point, then the permittee shall comply with the requirements of A.2 for the Group 1 emission point as expeditiously as practicable, but in no event later than 3 years after the emission point becomes Group 1.

i [40 CFR 63.100(m)(1)]
The permittee shall submit to the USEPA Region V-Administrator, with a copy to the Portsmouth Local Air Agency, for approval a compliance schedule, along with a justification for the schedule.

ii. [40 CFR 63.100(m)(2)]
The compliance schedule shall be submitted with the report required in A.2.zb.viii.(1).

iii. [40 CFR 63.100(m)(3)]
The compliance schedule shall be approved or changes requested within 120 calendar days of receipt of the compliance schedule and justification.

1k. [40 CFR 63.102(a)]
General Standards. The permittee shall comply with the requirements of sections A.2 and A.3 for all process units subject to A.1.

i [40 CFR 63.102(a)(1)]
The provisions set forth in A.2 and A.3 shall apply at all times except during periods of start-up or shutdown, malfunction, or non-operation of the CMPU (or specific portion thereof) resulting in cessation of the emissions to which A.2 and A.3 apply. However, if a start-up, shutdown, malfunction or period of non-operation of one portion of a CMPU does not affect the ability of a particular emission point to comply with the specific provisions to which it is subject, then that emission point shall still be required to comply with the applicable provisions of A.2 and A.3 during the start-up, shutdown, malfunction or period of non-operation. For example, the degassing of a storage vessel would not affect the ability of a process vent to meet the requirements of A.2.c.

ii. [40 CFR 63.102(a)(2)]
The provisions set forth in A.3 shall apply at all times except during periods of start-up or shutdown, malfunction, process unit shutdown, or non-operation of the CMPU (or specific portion thereof) in which the lines are drained and depressurized resulting in cessation of the emissions to which A.3 applies.

iii. [40 CFR 63.102(a)(3)]
The permittee shall not shut down items of equipment that are required or utilized for compliance with the provisions of A.1, A.2 or A.3 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 A.1, A.2 or A.3 applicable to such items of equipment. This section does not apply if the item of equipment is malfunctioning, or if the permittee must shut down the equipment to avoid damage due to a contemporaneous start-up, shutdown, or malfunction of the CMPU or portion thereof.

iv. [40 CFR 63.102(a)(4)]
During start-ups, shutdowns, and malfunctions when the requirements of A.1, A.2 and/or A.3 do not apply pursuant to A.1.k.i through A.1.k.iii, the permittee shall implement, to the extent reasonably available, measures to prevent or minimize excess emissions to the extent practical. For purposes of this section, the term "excess emissions" means emissions in excess of those that would have occurred if there were no start-up, shutdown, or malfunction and the permittee complied with the relevant provisions of A.1, A.2 and/or A.3. 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 source. Back-up control devices are not required, but may be used if available.

1l. [40 CFR 63.103(b)]
Initial performance tests and initial compliance determinations shall be required as specified in A.2 and A.3 of these terms and conditions.

i [40 CFR 63.103(b)(1) & (b)(2)]
Performance tests and compliance determinations shall be conducted according to the schedule and procedures in 40 CFR 63.7(a) and the applicable sections of A.2 and A.3. The permittee shall notify the USEPA Region V-Administrator, with a copy to the Portsmouth Local Air Agency, of the intention to conduct a performance test at least 30 calendar days before the performance test is scheduled to allow the opportunity to have an observer present during the test.

ii. [40 CFR 63.103(b)(3)]
Performance tests shall be conducted at maximum representative operating conditions for the process. During the performance test, the permittee may operate the control or recovery device at maximum or minimum representative operating conditions for monitored control or recovery device parameters, whichever results in lower emission reduction.

iii. [40 CFR 63.103(b)(4)]
Data shall be reduced in accordance with the EPA-approved methods specified in the A.2 or A.3 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 40 CFR Part 63.

iv. [40 CFR 63.103(b)(6)]
For flexible operation units, the permittee shall conduct all required compliance demonstrations during production of the primary product. The permittee is not required to conduct compliance demonstrations for operating conditions during production of a product other than the primary product. Except as otherwise provided in this permit, as applicable, the permittee shall operate each control device, recovery device, and/or recapture device that is required or used for compliance, and associated monitoring systems, without regard for whether the product that is being produced is the primary product or a different product. Except as otherwise provided in this permit, as applicable, operation of a control device, recapture device and/or recovery device required or used for compliance such that the daily average of monitored parameter values is outside the parameter range established pursuant to A.2.zb.ii.(2), or such that the monitoring data show operation inconsistent with the monitoring plan established pursuant to A.3.zb.v.(1), shall constitute a violation of the required operating conditions.

1m. [40 CFR 63.103(c)]
The permittee shall keep copies of all applicable reports and records required by A.2 and A.3 for at least 5 years; except that, if A.2 or A.3 require records to be maintained for a time period different than 5 years, those records shall be maintained for the time specified A.2 and A.3. If the permittee submits copies of reports to U. S. EPA, Region 5, with a copy to the Portsmouth Local Air Agency, the permittee is not required to maintain copies of reports.

i [40 CFR 63.103(c)(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 four 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.

ii. [40 CFR 63.103(c)(2)]
The permittee shall keep the records specified below, as well as records specified in A.2 and A.3:

(1) [40 CFR 63.103(c)(2)(i)]
Records of the occurrence and duration of each start-up, shutdown, and malfunction of operation of process equipment or of air pollution control equipment or continuous monitoring systems used to comply with A.2 or A.3 during which excess emissions occur.

(2) [40 CFR 63.103(c)(2)(ii)]
For each start-up, shutdown, and malfunction during which excess emissions occur, records that the procedures specified in the 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 (e.g., the incinerator for a halogenated stream could be routed to a flare during periods when the primary control device is out of service), records must be kept of whether the plan was followed. These records may take the form of a "checklist," or other form of record keeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event.

(3) [40 CFR 63.103(c)(2)(iii)]
For continuous monitoring systems used to comply with section A.3, records documenting the completion of calibration checks and maintenance of continuous monitoring systems that are specified in the manufacturer's instructions or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

(4) [40 CFR 63.103(c)(3)]
Records of start-up, shutdown and malfunction and continuous monitoring system calibration and maintenance are not required if they pertain solely to Group 2 emission points, as defined in A.2.b.ii.

iii. [40 CFR 63.103(d) & (d)(1)]
The permittee shall send all reports required by A.2 and A.3 to the USEPA Region V-Administrator, with a copy to the Portsmouth Local Air Agency, at the addresses listed below. Wherever 40 CFR Part 63, Subpart A specifies ``postmark" dates, submittals may be sent by methods other than the U.S. Mail (e.g., by fax or courier). Submittals shall be sent on or before the specified date.

USEPA Region V
77 West Jackson Blvd
Chicago, IL 60604-3507

Portsmouth Local Air Agency
605 Washington Street, Third Floor
Portsmouth, Ohio 45662

1n. [40 CFR 63.104]
Heat exchange system requirements

i [40 CFR 63.104(a)]
Unless one or more of the conditions specified in A.1.n.i.(1) or A.1.n.i.(2) are met, the permittee shall monitor each heat exchange system used to cool process equipment in a CMPU meeting the conditions of A.1.a, according to the provisions in A.1.n.ii. Whenever a leak is detected, the permittee shall comply with the requirements in A.1.n.iii.

(1) [40 CFR 63.104(a)(1)]
The heat exchange system is operated with the minimum pressure on the cooling water side at least 35 kilopascals greater than the maximum pressure on the process side.

(2) [40 CFR 63.104(a)(5)]
The recirculating heat exchange system is used to cool process fluids that contain less than 5 percent by weight of total HAPs listed in Table 4 of A.1.p.

ii. [40 CFR 63.104(b)]
The permittee who elects to comply with the requirements of A.1.n.i by monitoring the cooling water for the presence of one or more organic HAPs or other representative substances whose presence in cooling water indicates a leak shall comply with the requirements specified in A.1.n.ii.(1) through A.1.n.ii.(6). The cooling water shall be monitored for total HAPs, total volatile organic compounds, total organic carbon, one or more speciated HAP compounds, or other representative substances that would indicate the presence of a leak in the heat exchange system.

(1) [40 CFR 63.104(b)(1)]
The cooling water shall be monitored monthly for the first 6 months and quarterly thereafter to detect leaks.

(2) [40 CFR 63.104(b)(2)]
For recirculating heat exchange systems (cooling tower systems), the monitoring of speciated HAPs or total HAPs refers to the HAPs listed in Table 4 of A.1.p.

(3) [40 CFR 63.104(b)(3)]
The concentration of the monitored substance(s) in the cooling water shall be determined using any EPA-approved method listed in 40 CFR Part 136 as long as the method is sensitive to concentrations as low as 10 parts per million and the same method is used for both entrance and exit samples. Alternative methods may be used upon approval by the USEPA Region V-Administrator.

(4) [40 CFR 63.104(b)(4)]
The samples shall be collected either at the entrance and exit of each heat exchange system or at locations where the cooling water enters and exits each heat exchanger or any combination of heat exchangers.

(a) [40 CFR 63.104(b)(4)(i)]
For samples taken at the entrance and exit of recirculating heat exchange systems, the entrance is the point at which the cooling water leaves the cooling tower prior to being returned to the process equipment and the exit is the point at which the cooling water is introduced to the cooling tower after being used to cool the process fluid.

(b) [40 CFR 63.104(b)(4)(iii)]
For samples taken at the entrance and exit of each heat exchanger or any combination of heat exchangers in CMPUs, the entrance is the point at which the cooling water enters the individual heat exchanger or group of heat exchangers and the exit is the point at which the cooling water exits the heat exchanger or group of heat exchangers.

(5) [40 CFR 63.104(b)(5)]
A minimum of three sets of samples shall be taken at each entrance and exit as defined in A.1.n.ii.(4). The average entrance and exit concentrations shall then be calculated. The concentration shall be corrected for the addition of any makeup water or for any evaporative losses, as applicable.

(6) [40 CFR 63.104(b)(6)]
A leak is detected if the exit mean concentration is found to be greater than the entrance mean using a one-sided statistical procedure at the 0.05 level of significance and the amount by which it is greater is at least 1 part per million or 10 percent of the entrance mean, whichever is greater.

iii. [40 CFR 63.104(d)]
If a leak is detected according to the criteria of A.1.n.ii, the permittee shall comply with the requirements in A.1.n.iii.(1) and A.1.n.iii.(2), except as provided in A.1.n.iv.

(1) [40 CFR 63.104(d)(1)]
The leak shall be repaired as soon as practical but not later than 45 calendar days after the permittee receives results of monitoring tests indicating a leak. The leak shall be repaired unless the permittee demonstrates that the results are due to a condition other than a leak.

(2) [40 CFR 63.104(d)(2)]
Once the leak has been repaired, the permittee shall confirm that the heat exchange system has been repaired within 7 calendar days of the repair or startup, whichever is later.

iv. [40 CFR 63.104(e)]
Delay of repair of heat exchange systems for which leaks have been detected is allowed if the equipment is isolated from the process. Delay of repair is also allowed if repair is technically infeasible without a shutdown and any one of the conditions in A.1.n.iv.(1) or A.1.n.iv.(2) is met. All time periods in A.1.n.iv.(1) and A.1.n.iv.(2) shall be determined from the date when the permittee determines that delay of repair is necessary.

(1) [40 CFR 63.104(e)(1)]
If a shutdown is expected within the next 2 months, a special shutdown before that planned shutdown is not required.

(2) [40 CFR 63.104(e)(2)]
If a shutdown is not expected within the next 2 months, the permittee may delay repair as provided in A.1.n.iv.(2)(a) or A.1.n.iv.(2)(b). Documentation of a decision to delay repair shall state the reasons repair was delayed and shall specify a schedule for completing the repair as soon as practical.

(a) [40 CFR 63.104(e)(2)(i)]
If a shutdown for repair would cause greater emissions than the potential emissions from delaying repair, the permittee may delay repair until the next shutdown of the process equipment associated with the leaking heat exchanger. The permittee shall document the basis for the determination that a shutdown for repair would cause greater emissions than the emissions likely to result from delaying repair as specified in A.1.n.iv.(2)(a)(i) and A.1.n.iv.(2)(a)(ii).

(i) [40 CFR 63.104(e)(2)(i)(A)]
The permittee shall calculate the potential emissions from the leaking heat exchanger by multiplying the concentration of total HAPs listed in Table 4 of A.1.p in the cooling water from the leaking heat exchanger by the flow rate of the cooling water from the leaking heat exchanger by the expected duration of the delay. The permittee may calculate potential emissions using total organic carbon concentration instead of total HAPs listed in Table 4 of A.1.p.

(ii) [40 CFR 63.104(e)(2)(i)(B)]
The permittee shall determine emissions from purging and depressurizing the equipment that will result from the unscheduled shutdown for the repair.

(b) [40 CFR 63.104(e)(2)(ii)]
If repair is delayed for reasons other than those specified in A.1.n.iv.(2)(a), the permittee may delay repair up to a maximum of 120 calendar days. The permittee shall demonstrate that the necessary parts or personnel were not available.

v. [40 CFR 63.104(f)(1)]
The permittee shall retain the records identified in A.1.n.v.(1) through A.1.n.v.(3) as specified in A.1.m.i.

(1) [40 CFR 63.104(f)(1)(i)]
Monitoring data required by this section indicating a leak and the date when the leak was detected, and if demonstrated not to be a leak, the basis for that determination;

(2) [40 CFR 63.104(f)(1)(iii)]
The dates of efforts to repair leaks; and

(3) [40 CFR 63.104(f)(1)(iv)]
The method or procedure used to confirm repair of a leak and the date repair was confirmed.

vi. [40 CFR 63.104(f)(2)]
If the permittee invokes the delay of repair provisions for a heat exchange system, the following information shall be submitted in the next semi-annual Periodic Report required by A.2.zb.iii. If the leak remains unrepaired, the information shall also be submitted in each subsequent Periodic Report, until repair of the leak is reported.

(1) [40 CFR 63.104(f)(2)(i)]
The permittee shall report the presence of the leak and the date that the leak was detected.

(2) [40 CFR 63.104(f)(2)(ii)]
The permittee shall report whether or not the leak has been repaired.

(3) [40 CFR 63.104(f)(2)(iii)]
The permittee shall report the reason(s) for delay of repair. If delay of repair is invoked due to the reasons described in A.1.n.iv.(2), documentation of emissions estimates must also be submitted.

(4) [40 CFR 63.104(f)(2)(iv)]
If the leak remains unrepaired, the permittee shall report the expected date of repair.

(5) [40 CFR 63.104(f)(2)(v)]
If the leak is repaired, the permittee shall report the date the leak was successfully repaired.

1o. [40 CFR 63.105(a)]
The permittee shall comply with A.1.o.i through A.1.o.iv below for maintenance wastewaters containing those organic HAP's listed in Table 9 of A.2.zc.

i [40 CFR 63.105(b)]
The permittee shall prepare a description of maintenance procedures for management of wastewaters generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance, and repair (i.e., a maintenance-turnaround) and during periods which are not shutdowns (i.e., routine maintenance). The descriptions shall:

(1) [40 CFR 63.104(b)(1)]
Specify the process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities.

(2) [40 CFR 63.104(b)(2)]
Specify the procedures that will be followed to properly manage the wastewater and control organic HAP emissions to the atmosphere; and

(3) [40 CFR 63.104(b)(3)]
Specify the procedures to be followed when clearing materials from process equipment.

ii. [40 CFR 63.105(c)]
The permittee shall modify and update the information required by A.1.o.i as needed following each maintenance procedure based on the actions taken and the wastewaters generated in the preceding maintenance procedure.

iii. [40 CFR 63.105(d)]
The permittee shall implement the procedures described in A.1.o.i and A.1.o.ii as part of the start-up, shutdown, and malfunction plan.

iv. [40 CFR 63.105(e)]
The permittee shall maintain a record of the information required by A.1.o.i and A.1.o.ii as part of the start-up, shutdown, and malfunction plan required under 40 CFR Part 63, Subpart A.

1p. Tables

i Table 1 - Synthetic Organic Chemical Manufacturing Industry Chemicals

Chemical name - Chemical Abstract Number - Group

Acenaphthene - 83329 - V
Acetal - 105577 - V
Acetaldehyde - 75070 - II
Acetamide - 60355 - II
Acetanilide - 103844 - II
Acetic acid - 64197 - II
Acetic anhydride - 108247 - II
Acetoacetanilide - 102012 - III
Acetone - 67641 - I
Acetone cyanohydrin - 75865 - V
Acetonitrile - 75058 - I
Acetophenone - 98862 - I

Acrolein - 107028 - IV
Acrylamide - 79061 - I
Acrylic acid - 79107 - IV
Acrylonitrile - 107131 - I
Adiponitrile - 111693 - I
Alizarin - 72480 - V
Alkyl anthraquinones - 008 - V
Allyl alcohol - 107186 - I
Allyl chloride - 107051 - IV
Allyl cyanide - 109751 - IV
Aminophenol sulfonic acid - 0010 - V
Aminophenol (p-) - 123308 - I
Aniline - 62533 - I
Aniline hydrochloride - 142041 - III
Anisidine (o-) - 90040 - II
Anthracene - 120127 - V
Anthraquinone - 84651 - III
Azobenzene - 103333 - I
Benzaldehyde - 100527 - III
Benzene - 71432 - I
Benzenedisulfonic acid - 98486 - I
Benzenesulfonic acid - 98113 - I
Benzil - 34816 - III
Benzilic acid - 76937 - III
Benzoic acid - 65850 - III
Benzoin - 119539 - III
Benzonitrile - 100470 - III
Benzophenone - 119619 - I
Benzotrichloride - 98077 - III
Benzoyl chloride - 98884 - III
Benzyl acetate - 140114 - III
Benzyl alcoho - l100516 - III
Benzyl benzoate - 120514 - III
Benzyl chloride - 100447 - III
Benzyl dichloride - 98873 - III
Biphenyl - 92524 - I
Bisphenol - A80057 - III
Bis(Chloromethyl) Ether - 542881 - I
Bromobenzene - 108861 - I
Bromoform - 75252 - V
Bromonaphthalene - 27497514 - IV
Butadiene (1,3-) - 106990 - II
Butanediol (1,4-) - 110634 - I
Butyl acrylate (n-) - 141322 - V

Butylene glycol (1,3-) - 107880 - II
Butyrolactone - 96480 - I
Caprolactam - 105602 - II
Carbaryl - 63252 - V
Carbazole - 86748 - V
Carbon disulfide - 75150 - IV
Carbon tetrabromide - 558134 - II
Carbon tetrachloride - 56235 - I
Carbon tetrafluoride - 75730 - II
Chloral - 75876 - II
Chloroacetic acid - 79118 - II
Chloroacetophenone (2-) - 532274 - I
Chloroaniline (p-) - 106478 - II
Chlorobenzene - 108907 - I
2-Chloro-1,3-butadiene (Chloroprene) - 126998 - II
Chlorodifluoroethane - 25497294 - V
Chlorodifluoromethane - 75456 - I
Chloroform - 67663 - I
Chloronaphthalene - 25586430 - IV
Chloronitrobenzene (m-) - 121733 - I
Chloronitrobenzene (o-) - 88733 - I
Chloronitrobenzene (p-) - 100005 - I
Chlorophenol (m-) - 108430 - II
Chlorophenol (o-) - 95578 - II
Chlorophenol (p-) - 106489 - II
Chlorotoluene (m-) - 108418 - III
Chlorotoluene (o-) - 95498 - III
Chlorotoluene (p-) - 106434 - III
Chlorotrifluoromethane - 75729 - II
Chrysene - 218019 - V
Cresol and cresylic acid (m-) - 108394 - III
Cresol and cresylic acid (o-) - 95487 - III
Cresol and cresylic acid (p-) - 106445 - III
Cresols and cresylic acids (mixed) - 1319773 - III
Cumene - 98828 - I
Cumene hydroperoxide - 80159 - I
Cyanoacetic acid - 372098 - II
Cyclohexane - 110827 - I
Cyclohexanol - 108930 - I
Cyclohexanone - 108941 - I
Cyclohexylamine - 108918 - III
Cyclooctadienes - 29965977 - II
Decahydronaphthalene - 91178 - IV
Diacetoxy-2-Butene (1,4-) - 0012 - V

Diaminophenol hydrochloride - 137097 - V
Dibromomethane - 74953 - V
Dichloroaniline (mixed isomers) - 27134276 - I
Dichlorobenzene (p-) - 106467 - I
Dichlorobenzene (m-) - 541731 - I
Dichlorobenzene (o-) - 95501 - I
Dichlorobenzidine (3,3"-) - 91941 - I
Dichlorodifluoromethane - 75718 - I
Dichloroethane (1,2-) (Ethylenedichloride) (EDC) - 107062 - I
Dichloroethyl ether (bis(2-chloroethyl)ether) - 111444 - I
Dichloroethylene (1,2-) - 540590 - II
Dichlorophenol (2,4-) - 120832 - III
Dichloropropene (1,3-) - 542756 - II
Dichlorotetrafluoro-ethane - 1320372 - V
Dichloro-1-butene (3,4-) - 760236 - II
Dichloro-2-butene (1,4-) - 764410 - V
Diethanolamine (2,2'-Iminodiethanol) - 111422 - I
Diethyl sulfate - 64675 - II
Diethylamine - 109897 - IV
Diethylaniline (2,6-) - 579668 - V
Diethylene glycol - 111466 - I
Diethylene glycol dibutyl ether - 112732 - I
Diethylene glycol diethyl ether - 112367 - I
Diethylene glycol dimethyl ether - 111966 - I
Diethylene glycol monobutyl ether acetate - 124174 - I
Diethylene glycol monobutyl ether - 112345 - I
Diethylene glycol monoethyl ether acetate - 112152 - I
Diethylene glycol monoethyl ether - 111900 - I
Diethylene glycol monohexyl ether - 112594 - V
Diethylene glycol monomethyl ether acetate - 629389 - V
Diethylene glycol monomethyl ether1 - 11773 - I
Dihydroxybenzoic acid (Resorcylic acid) - 27138574 - V
Dimethylbenzidine (3,3'-) - 119937 - II
Dimethyl ether - 115106 - IV
Dimethylformamide (N,N-) - 68122 - II
Dimethylhydrazine (1,1-) - 57147 - II
Dimethyl sulfate - 77781 - I
Dimethyl terephthalate - 120616 - II
Dimethylamine - 124403 - IV
Dimethylaminoethanol (2-) - 108010 - I
Dimethylaniline (N,N") - 121697 - III
Dinitrobenzenes (not otherwise specified) - 25154545 - I
Dinitrophenol (2,4-) - 51285 - III
Dinitrotoluene (2,4-) - 121142 - III

Dioxane (1,4-) (1,4-Diethyleneoxide) - 1239 - 11I
Dioxolane (1,3-) - 646060 - I
Diphenyl methane - 101815 - I
Diphenyl oxide - 101848 - I
Diphenyl thiourea - 102089 - III
Diphenylamine - 122394 - III
Dipropylene glycol - 110985 - I
Di-o-tolyguanidine - 97392 - III
Dodecanedioic acid - 693232 - I
Dodecyl benzene (branched) - 123013 - V
Dodecyl phenol (branched) - 121158585 - V
Dodecylaniline - 28675174 - V
Dodecylbenzene (n-) - 121013 - I
Dodecylphenol - 27193868 - III
Epichlorohydrin (1-chloro-2,3-epoxypropane) - 106898 - I
Ethanolamine - 141435 - I
Ethyl acrylate - 140885 - II
Ethylbenzene - 100414 - I
Ethyl chloride (Chloroethane) - 75003 - IV
Ethyl chloroacetate - 105395 - II
Ethylamine - 75047 - V
Ethylaniline (N-) - 103695 - III
Ethylaniline (o-) - 578541 - III
Ethylcellulose - 9004573 - V
Ethylcyanoacetate - 105566 - V
Ethylene carbonate - 96491 - I
Ethylene dibromide (Dibromoethane) - 106934 - I
Ethylene glycol - 107211 - I
Ethylene glycol diacetate - 111557 - I
Ethylene glycol dibutyl ether - 112481 - V
Ethylene glycol diethyl ether (1,2-diethoxyethane) - 629141 - I
Ethylene glycol dimethyl ether - 110714 - I
Ethylene glycol monoacetate - 542596 - V
Ethylene glycol monobutyl ether acetate - 112072 - I
Ethylene glycol monobutyl ether - 111762 - I
Ethylene glycol monoethyl ether acetate - 111159 - I
Ethylene glycol monoethyl ether - 110805 - I
Ethylene glycol monohexyl ether - 112254 - V
Ethylene glycol monomethyl ether acetate - 110496 - I
Ethylene glycol monomethyl ether - 109864 - I
Ethylene glycol monooctyl ether - 002 - V
Ethylene glycol monophenyl ether - 122996 - I
Ethylene glycol monopropyl ether - 2807309 - I
Ethylene oxide - 75218 - I

Ethylenediamine - 107153 - II
Ethylenediamine tetraacetic acid - 60004 - V
Ethylenimine (Aziridine) - 151564 - II
Ethylhexyl acrylate (2-isomer) - 103117 - II
Fluoranthene - 206440 - V
Formaldehyde - 50000 - I
Formamide - 75127 - II
Formic acid - 64186 - II
Fumaric acid - 110178 - I
Glutaraldehyde - 111308 - IV
Glyceraldehyde - 367475 - V
Glycerol - 56815 - II
Glycine - 56406 - II
Glyoxal - 107222 - II
Hexachlorobenzene - 118741 - II
Hexachlorobutadiene - 87683 - II
Hexachloroethane - 67721 - II
Hexadiene (1,4-) - 592450 - II
Hexamethylene-tetramine - 100970 - I
Hexane - 110543 - V
Hexanetriol (1,2,6-) - 106694 - IV
Hydroquinone - 123319 - I
Hydroxyadipaldehyde - 141311 - V
Isobutyl acrylate - 106638 - V
Isobutylene - 115117 - V
Isophorone - 78591 - IV
Isophorone nitrile - 0017 - V
Isophthalic acid 121915 - III
Isopropylphenol 25168063 - III
Linear alkylbenzene - (no CAS number assigned) - I
Maleic anhydride - 108316 - I
Maleic hydrazide - 123331 - I
Malic acid - 6915157 - I
Metanilic acid - 121471 - I
Methacrylic acid - 79414 - V
Methanol - 67561 - IV
Methionine - 63683 - I
Methyl acetate - 79209 - IV
Methyl acrylate - 96333 - V
Methyl bromide (Bromomethane) - 74839 - IV
Methyl chloride (Chloromethane) - 74873 - IV
Methyl ethyl ketone (2-butanone) - 78933 - V
Methyl formate - 107313 - II
Methyl hydrazine - 60344 - IV

Methyl isobutyl carbinol - 108112 - IV
Methyl isobutyl ketone (Hexone) - 108101 - IV
Methyl isocyanate - 624839 - IV
Methyl mercaptan - 74931 - IV
Methyl methacrylate - 80626 - IV
Methyl phenyl carbinol - 98851 - II
Methyl tert-butyl ether - 1634044 - V
Methylamine - 74895 - IV
Methylaniline (N-) - 100618 - III
Methylcyclohexane - 108872 - III
Methylcyclohexanol - 25639423 - V
Methylcyclohexanone1 - 331222 - III
Methylene chloride (Dichloromethane) - 75092 - I
Methylene dianiline (4,4'-isomer) - 101779 - I
Methylene diphenyl diisocyanate (4,4'-) (MDI) - 101688 - III
Methylionones (a-) - 79696 - V
Methylpentynol - 77758 - V
Methylstyrene (a-) - 98839 - I
Naphthalene - 91203 - IV
Naphthalene sulfonic acid (a-) - 85472 - IV
Naphthalene sulfonic acid (b-) - 120183 - IV
Naphthol (a-) - 90153 - IV
Naphthol (b-) - 135193 - IV
Naphtholsulfonic acid (1-) - 567180 - V
Naphthylamine sulfonic acid (1,4-) - 84866 - V
Naphthylamine sulfonic acid (2,1-) - 81163 - V
Naphthylamine (1-) - 134327 - V
Naphthylamine (2-) - 91598 - V
Nitroaniline (m-) - 99092 - II
Nitroaniline (o-) - 88744 - I
Nitroanisole (o-) - 91236 - III
Nitroanisole (p-) - 100174 - III
Nitrobenzene - 98953 - I
Nitronaphthalene (1-) - 86577 - IV
Nitrophenol (p-) - 100027 - III
Nitrophenol (o-) - 88755 - III
Nitropropane (2-) - 79469 - II
Nitrotoluene (all isomers) - 1321126 - III
Nitrotoluene (o-) - 88722 - III
Nitrotoluene (m-) - 99081 - III
Nitrotoluene (p-) - 99990 - III
Nitroxylene - 25168041 - V
Nonylbenzene (branched) - 1081772 - V
Nonylphenol - 25154523 - V

Octene-1 - 111660 - I
Octylphenol - 27193288 - III
Paraformaldehyde - 30525894 - I
Paraldehyde - 123637 - II
Pentachlorophenol - 87865 - III
Pentaerythritol - 115775 - I
Per acetic acid - 79210 - II
Perchloromethyl mercaptan - 594423 - IV
Phenanthrene - 85018 - V
Phenetidine (p-) - 156434 - III
Phenol - 108952 - III
Phenolphthalein - 77098 - III
Phenol sulfonic acids (all isomers) - 1333397 - III
Phenyl anthracitic acid (all isomers) - 91407 - III
Phenylenediamine (p-) - 106503 - I
Phloroglucinol - 108736 - III
Phosgene - 75445 - IV
Phthalic acid - 88993 - III
Phthalic anhydride - 85449 - III
Phthalimide - 85416 - III
Phthalonitrile - 91156 - III
Pickling (b-) - 108996 - II
Piperazine - 110850 - I
Propiolactone (beta-) - 57578 - I
Propionaldehyde - 123386 - IV
Propionic acid - 79094 - I
Propylene carbonate - 108327 - V
Propylene dichloride (1,2-Dichloropropene) - 78875 - IV
Propylene glycol - 57556 - I
Propylene glycol monomethyl ether - 107982 - I
Propylene oxide - 75569 - I
Parana - 129000 - V
Pyridine - 110861 - II
p-tert-Butyl toluene - 98511 - III
Quinine - 106514 - III
Resorcinol - 108463 - I
Salicylic acid - 69727 - III
Sodium methodize - 124414 - IV
Sodium fanned - 139026 - III
Silene - 588590 - III
Styrene - 100425 - I
Succinic acid - 110156 - I
Succinonitrile - 110612 - I
Sulfanilic acid - 121573 - III

Sulfonate - 126330 - II
Tartaric acid - 526830 - I
Terephthalic acid - 100210 - II
Tetrabromophthalic anhydride - 632791 - III
Tetrachlorobenzene (1,2,4,5-) - 95943 - I
Tetrachloromethane (1,1,2,2-) - 79345 - II
Tetrachloroethylene (Perchloroethylene) - 127184 - I
Tetrachlorophthalicanhydride - 117088 - III
Tetraethyl lead - 78002 - IV
Tetraethylene glycol - 112607 - I
Tetraethylenepentamine - 112572 - V
Tetrahydrofuran - 109999 - I
Tetrahydronapthalene - 119642 - IV
Tetrahydrophthalic anhydride - 85438 - II
Tetramethylenediamine - 110601 - II
Tetramethylethylenediamine - 110189 - V
Tetramethyllead - 75741 - V
Toluene - 108883 - I
Toluene 2,4 diamine - 95807 - II
Toluene 2,4 diisocyanate - 584849 - II
Toluene diisocyanates (mixture) - 26471625 - II
Toluene sulfonic acids - 104154 - III
Toluenesulfonyl chloride - 98599 - III
Toluidine (o-) - 95534 - II
Trichloroaniline-(2,4,6-) - 634935 - III
Trichlorobenzene (1,2,3-) - 87616 - V
Trichlorobenzene (1,2,4-) - 120821 - I
Trichloroethane (1,1,1-) - 71556 - II
Trichloroethane (1,1,2-) (Vinyl trichloride) - 79005 - II
Trichloroethylene - 79016 - I
Trichlorofluoromethane - 75694 - I
Trichlorophenol (2,4,5-) - 95954 - I
(1,1,2-) Trichloro (1,2,2-) trifluoroethane - 76131 - I
Triethanolamine - 102716 - I
Triethylamine - 121448 - IV
Triethylene glycol - 112276 - I
Triethylene glycol dimethyl ether - 112492 - I
Triethylene glycol monoethyl ether - 112505 - V
Triethylene glycol monomethyl ether - 112356 - I
Trimethylamine - 75503 - IV
Trimethylcyclohexanol - 933482 - IV
Trimethylcyclo-hexanone - 2408379 - IV
Trimethylcyclo-hexylamine - 34216347 - V
Trimethylolpropane 77996 - I

Trimethylpentane (2,2,4-) 540841 - V
Tripropylene glycol 24800440 - V
Vinyl acetate 108054 - II
Vinyl chloride (Chloroethylene) - 75014 - I
Vinyl toluene - 25013154 - III
Vinylcyclohexene (4-) - 100403 - II
Vinylidene chloride (1,1-dichloroethylene) - 75354 - II
Vinyl(N-)-pyrrolidone(2-) - 88120 - V
Xanthates - 140896 - V
Xylene sulfonic acid - 25321419 - III
Xylenes (not otherwise specified) - 1330207 - I
Xylene (m-) - 108383 - I
Xylene (o-) - 95476 - I
Xylene (p-) - 106423 - I
Xylenols (Mixed) - 1300716 - V
Xylidene1 - 300738 - III

Note:Isomer means all structural arrangements for the same number of atoms of each element and does not mean salts, esters, or derivatives.

ii. Table 2 - Organic Hazardous Air Pollutants

Chemical Name - Chemical Abstract Service Number
Acenaphthene - 83329
Acetaldehyde - 75070
Acetamide - 60355
Acetonitrile - 75058
Acetophenone - 98862
Acrolein - 107028
Acrylamide - 79061
Acrylic acid - 79107
Acrylonitrile - 107131
Alizarin - 72480
Allyl chloride - 107051
Aniline - 62533
Anisidine (o-) - 90040
Anthracene - 120127
Anthraquinone - 84651
Benzene - 71432
Benzotrichloride - 98077
Benzyl chloride - 100447
Biphenyl - 92524
Bis(chloromethyl)ether - 542881
Bromoform - 75252

Bromonaphthalene - 27497514
Butadiene (1,3-) - 106990
Carbon disulfide - 75150
Carbon tetrachloride - 56235
Chloroacetic acid - 79118
Chloroacetophenone (2-) - 532274
Chlorobenzene - 108907
2 - Chloro-,1,3-butadiene (Chloroprene) - 126998
Chloroform - 67663
Chloronaphthalene - 25586430
Chrysene - 218019
Cresols and cresylic acids (mixed) - 1319773
Cresol and cresylic acid (o-) - 95487
Cresol and cresylic acid (m-) - 108394
Cresol and cresylic acid (p-) - 106445
Cumene - 98828
Dichlorobenzene (p-) - 106467
Dichlorobenzidine (3,3"-) - 91941
Dichloroethane (1,2-) (Ethylene dichloride) (EDC) - 107062
Dichloroethylether (Bis(2-chloroethyl)ether) - 111444
Dichloropropene (1,3-) - 542756
Diethanolamine (2,2"-Iminodiethanol) - 111422
Dimethylaniline (N,N-) - 121697
Diethyl sulfate - 64675
Dimethylbenzidine (3,3"-) - 119937
Dimethylformamide (N,N-) - 68122
Dimethylhydrazine (1,1-) - 58147
Dimethylphthalate - 131113
Dimethylsulfate - 77781
Dinitrophenol (2,4-) - 51285
Dinitrotoluene (2,4-) - 121142
Dioxane (1,4-) (1,4 - Diethyleneoxide) - 123911
1,2 - Diphenylhydrazine - 122667
Epichlorohydrin (1 - Chloro-2,3-epoxypropane) - 106898
Ethyl acrylate - 140885
Ethylbenzene - 100414
Ethyl chloride (Chloroethane) - 75003
Ethylene dibromide (Dibromoethane) - 106934
Ethylene glycol - 107211
Ethylene oxide - 75218
Ethylidene dichloride (1,1 - Dichloroethane) - 75343
Fluoranthene - 206440
Formaldehyde - 50000
Glycol ethers (see note (3) below)

Hexachlorobenzene - 118741
Hexachlorobutadiene - 87683
Hexachloroethane - 67721
Hexane - 110543
Hydroquinone - 123319
Isophorone - 78591
Maleic anhydride - 108316
Methanol - 67561
Methylbromide (Bromomethane) - 74839
Methylchloride (Chloromethane) - 74873
Methyl ethyl ketone (2 - Butanone) - 78933
Methyl hydrazine - 60344
Methyl isobutyl ketone (Hexone) - 108101
Methyl isocyanate - 624839
Methyl methacrylate - 80626
Methyl tert-butyl ether - 1634044
Methylene chloride (Dichloromethane) - 75092
Methylene diphenyl diisocyanate (4,4"-) (MDI) - 101688
Methylenedianiline (4,4"-) - 101779
Naphthalene - 91203
Naphthalene sulfonic acid (a) - 85472
Naphthalene sulfonic acid (?) - 120183
Naphthol (a) - 90153
Naphthol (?) - 135193
Naphtholsulfonic acid (1-) - 567180
Naphthylamine sulfonic acid (1,4-) - 84866
Naphthylamine sulfonic acid (2,1-) - 81163
Naphthylamine (1-) -
Naphthylamine (2-) - 91598
Nitronaphthalene (1-) - 86577
Nitrobenzene - 98953
Nitrophenol (p-) - 100027
Nitropropane (2-) - 79469
Phenanthrene - 85018
Phenol - 108952
Phenylenediamine (p-) - 106503
Phosgene - 75445
Phthalic anhydride - 85449
Propiolactone (beta-) - 57578
Propionaldehyde - 123386
Propylene dichloride (1,2 - Dichloropropene) - 78875
Propylene oxide - 75569
Parana - 129000
Quinine - 106514

Styrene - 100425
Tetrachloromethane (1,1,2,2-) - 79345
Tetrachloroethylene (Perchloroethylene) - 127184
Tetrahydronaphthalene - 119642
Toluene - 108883
Toluene diamine (2,4-) - 95807
Toluene diisocyanate (2,4-) - 584849
Toluidine (o-) - 95534
Trichlorobenzene (1,2,4-) - 120821
Trichloroethane (1,1,1-) (Methyl chloroform) - 71556
Trichloroethane (1,1,2-) (Vinyl trichloride) - 79005
Trichloroethylene - 79016
Trichlorophenol (2,4,5-) - 95954
Triethylamine - 121448
Trimethylpentane (2,2,4-) - 540841
Vinyl acetate - 108054
Vinyl chloride (Chloroethylene) - 75014
Vinylidene chloride (1,1 - Dichloroethylene) - 75354
Xylenes (NOS) - 1330207
Xylene (m-) - 108383
Xylene (o-) - 95476
Xylene (p-) - 106423

Note:

(1) For all listings above containing the word ``Compounds," the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic) as part of that chemical's infrastructure

(2) Isomer means all structural arrangements for the same number of atoms of each element and does not mean salts, esters, or derivatives

(3) Includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2 CH2)n-OR where:
n=1, 2, or 3;
R=alkyl or aryl groups; and
R"=R, H or groups which, when removed, yield glycol ethers with the structure: R-(OCH2 CH2)n-OH
Polymers are excluded from the glycol category

iii. Table 4 - Organic Hazardous Air Pollutants Subject to Cooling Tower Monitoring Requirements in A.1.n

Chemical Name - Chemical Abstract Service Number
Acetaldehyde - 75070
Acetonitrile - 75058
Acetophenone - 98862
Acrolein - 107028
Acrylonitrile - 107131
Allyl chloride - 107051
Aniline - 62533
Anisidine (o-) - 90040
Benzene - 71432
Benzyl chloride - 100447
Biphenyl - 92524
Bromoform - 75252
Butadiene (1,3-) - 106990
Carbon disulfide - 75150
Carbon tetrachloride - 56235
Chloroacetophenone (2-) - 532274
Chlorobenzene - 108907
2 - Chloro-1,3-butadiene (Chloroprene) - 126998
Chloroform - 67663
Cresol and cresylic acid (o-) - 95487
Cresol and cresylic acid (m-) - 108394
Cresol and cresylic acid (p-) - 106445
Cumene - 98828
Dichlorobenzene (p-) - 106467
Dichlorobenzidine (3,3"-) - 91941
Dichloroethane (1,2-) (Ethylene dichloride) (EDC) - 107062
Dichloroethyl ether (Bis(2-chloroethyl)ether) - 111444
Dichloropropene (1,3-) - 542756
Diethylene glycol diethyl ether - 112367
Diethylene glycol dimethyl ether - 111966
Diethyl sulfate - 64675
Dimethylaniline (N,N-) - 121697
Dimethylhydrazine (1,1-) - 57147
Dimethyl phthalate - 131113
Dimethyl sulfate - 77781
Dinitrophenol (2,4-) - 51285
Dinitrotoluene (2,4-) - 121142
Dioxane (1,4-) (1,4-Diethyleneoxide) - 123911
Epichlorohydrin (1-Chloro-2,3-epoxypropane) - 106898
Ethyl acrylate - 140885
Ethylbenzene - 100414
Ethyl chloride (Chloroethane) - 75003
Ethylene dibromide (Dibromoethane) - 106934

Ethylene glycol dimethyl ether - 110714
Ethylene glycol monobutyl ether - 111762
Ethylene glycol monobutyl ether acetate - 112072
Ethylene glycol monoethyl ether acetate - 111159
Ethylene glycol monoethyl ether - 110805
Ethylene glycol monomethyl ether - 109864
Ethylene glycol monomethyl ether acetate - 110496
Ethylene glycol monopropyl ether - 2807309
Ethylene oxide - 75218
Ethylidene dichloride (1,1-Dichloroethane) - 75343
Formaldehyde - 50000
Hexachlorobenzene - 118741
Hexachlorobutadiene - 87683
Hexachloroethane - 67721
Hexane - 110543
Isophorone - 78591
Methanol - 67561
Methyl bromide (Bromomethane) - 74839
Methyl chloride (Chloromethane) - 74873
Methyl ethyl ketone (2 - Butanone) - 78933
Methyl hydrazine 60344
Methyl isobutyl ketone (Hexone) - 108101
Methyl methacrylate 80626
Methyl tert-butyl ether - 1634044
Methylene chloride (Dichloromethane) - 75092
Methylenedianiline (4,4"-) - 101779
Naphthalene - 91203
Nitrobenzene - 98953
Nitropropane (2-) - 79469
Phenol - 108952
Phenylenediamine (p-) - 106503
Phosgene - 75445
Propionaldehyde - 123386
Propylene dichloride (1,2-Dichloropropene) - 78875
Propylene oxide - 75569
Quinine - 106514
Styrene - 100425
Tetrachloromethane (1,1,2,2-) - 79345
Tetrachloroethylene (Perchloroethylene) - 127184
Toluene - 108883
Toluidine (o-) - 95534
Trichlorobenzene (1,2,4-) - 120821
Trichloroethane (1,1,1-) (Methyl chloroform) - 71556
Trichloroethane (1,1,2-) (Vinyl trichloride) - 79005

Trichloroethylene - 79016
Trichlorophenol (2,4,5-) - 95954
Triethylamine - 121448
Trimethylpentane (2,2,4-) - 540841
Vinyl acetate - 108054
Vinyl chloride (chloroethylene) - 75014
Vinylidene chloride (1,1-Dichloroethylene) - 75354
Xylene (m-) - 108383
Xylene (o-) - 95476
Xylene (p-) - 106423

2. [40 CFR Part 63, Subpart G]
Standards for process vents, storage vessels, transfer operations, and wastewater

2a. i. [40 CFR 63.111]
A Group1 process vent has a flow greater than or equal to 0.005 standard cubic meter per minute (scm/m), total organic hazardous air pollutant (HAP) concentration is equal to or greater than 50 parts per million (ppm) by volume, and the total resource effectiveness (TRE) index value calculated per A.2.e is less than or equal to 1.0.

ii. [40 CFR 63.111]
A Group 2 process vent has a flow less than 0.005 standard cubic meter per minute (scm/m), total organic HAP concentration is less than 50 parts per million (ppm) by volume, or the TRE index value calculated per A.2.e is greater than 1.0.

iii. [40 CFR 63.112(e)(3)]
When emissions of different kinds (e.g., emissions from process vents, transfer operations, storage vessels, process wastewater) 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 permittee shall comply with the requirements of either (1) or (2) below:

(1) [40 CFR 63.112(e)(3)(i)]
Comply with the applicable requirements of A.2 for each kind of emissions in the stream; or

(2) [40 CFR 63.112(e)(3)(ii)]
Comply with the first set of requirements identified in A.2.a.iii.(2)(a) through A.2.a.iii.(2)(c) 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 permittee chooses to consider that emission stream to be Group 1 for purposes of this section. Compliance with the first applicable set of requirements identified in A.2.a.iii.(2)(a) through A.2.a.iii.(2)(c) constitutes compliance with all other

requirements in A.2.a.iii.(2)(a) through A.2.a.iii.(2)(c) applicable to other types of emissions in the combined stream.

(a) [40 CFR 63.112(e)(3)(ii)(A)]
The requirements of A.2 for Group 1 process vents, including applicable monitoring, record keeping, and reporting; or

(b) [40 CFR 63.112(e)(3)(ii)(D)]
The requirements of A.2.r for control devices used to control emissions from waste management units, including applicable monitoring, record keeping, and reporting; or

(c) [40 CFR 63.112(e)(3)(ii)(E)]
The requirements of A.2.r for closed vent systems for control of emissions from in-process equipment subject to A.2.z, including applicable monitoring, record keeping, and reporting.

iv. [40 CFR 63.111]
A Group 1 transfer rack loads greater than or equal to 0.65 million liters of liquids that contain organic HAPs with rack weighted average vapor pressure greater than or equal to 10.3 kilopascals.

v. [40 CFR 63.111]
A Group 2 transfer rack is a transfer rack which does not meet the definition of a Group 1 transfer rack.

vi. [40 CFR Part 63, Subpart G, Table 5 and 6]
Group 1 storage vessel means a storage vessel that meets the criteria for design storage capacity and stored-liquid maximum true vapor pressure specified in (1) through (4) below:

(1) Storage vessels at existing sources - a vessel capacity of greater than or equal to 75 cubic meters but less than 151 cubic meters and a vapor pressure (at storage temperature) of less than of equal to 13.1 kilopascals.

(2) Storage vessels at existing sources - a vessel capacity of greater than or equal to 151 cubic meters and a vapor pressure (at storage temperature) of less than of equal to 5.2 kilopascals.

(3) Storage vessels at new sources - a vessel capacity of greater than or equal to 38 cubic meters but less than 151 cubic meters and a vapor pressure (at storage temperature) of less than of equal to 13.1 kilopascals.

(4) Storage vessels at new sources - a vessel capacity of greater than or equal to 151 cubic meters and a vapor pressure (at storage temperature) of less than or equal to 0.7 kilopascals.

vii. [40 CFR 63.111]
Group 2 storage vessel means a storage vessel that does not meet the definition of a Group 1 storage vessel.

viii. [40 CFR 63.111]
Group 1 wastewater stream means a wastewater stream consisting of process wastewater at an existing or new source that meets the criteria for Group 1 status in A.2.k.iii for compounds listed in Table 9 of A.2.zc and/or a wastewater stream consisting of process wastewater at a new source that meets the criteria for Group 1 status in A.2.k.iv for compounds listed in Table 8 of A.2.zc.

ix. [40 CFR 63.111]
Group 2 wastewater stream means any process wastewater stream that does not meet the definition of a Group 1 wastewater stream.

2b. i. [40 CFR 63.110(b)(1)]
After the compliance dates specified in A.1, a Group 1 or Group 2 storage vessel that is also subject to the provisions of 40 CFR Part 60, Subpart Kb is required to comply only with the provisions of A.2.

ii. [40 CFR 63.110(d)(1)]
After the compliance dates specified in A.1, a Group 1 process vent that is also subject to the provisions of 40 CFR Part 60, Subpart III is required to comply only with the provisions of A.2.

iii. [40 CFR 63.110(d)(2)]
After the compliance dates specified in A.1, the permittee of a Group 2 process vent that is also subject to the provisions of 40 CFR Part 60, Subpart III shall determine requirements according to A.2.a.iii.(1) and A.2.a.iii.(2).

(1) [40 CFR 63.110(d)(2)(i)]
If the Group 2 process vent has a TRE index value less than 1 as determined by the procedures in 40 CFR Part 60, Subpart III, the process vent is required to comply with the provisions in (a) through (c) below:

(a) [40 CFR 63.110(d)(2)(i)(A)]
The provisions in both A.2 and in 40 CFR Part 60, Subpart III for applicability determination and the associated record keeping and reporting;

(b) [40 CFR 63.110(d)(2)(i)(B)]
The provisions in both A.2 and in 40 CFR Part 60, Subpart III for process changes and recalculation of the TRE index value and the associated record keeping and reporting; and

(c) [40 CFR 63.110(d)(2)(i)(C)]
The control requirements in 40 CFR 60.612. The permittee may elect to comply with either the associated testing, monitoring, reporting, and record keeping requirements of 40 CFR Part 60, Subpart III or with the testing, monitoring, reporting, and record keeping requirements specified in A.2 for Group 1 process vents. The permittee shall indicate this decision in either the NCS specified in A.2.zb.ii or in an operating permit application or amendment.

(2) [40 CFR 63.110(d)(2)(ii)]
If the Group 2 process vent has a TRE index value greater than or equal to 1 as determined by the procedures in 40 CFR Part 60, Subpart III, the process vent is required to comply only with the provisions specified in (a) through (b) below:

(a) [40 CFR 63.110(d)(2)(ii)(A)]
The provisions in both A.2 and in 40 CFR Part 60, Subpart III for applicability determination and the associated record keeping and reporting;

(b) [40 CFR 63.110(d)(2)(ii)(B)]
The provisions in both A.2 and in 40 CFR Part 60, Subpart III for process changes and recalculation of the TRE index value and the associated record keeping and reporting;

(c) [40 CFR 63.110(d)(2)(ii)(C)]
If the provisions of both A.2 and 40 CFR Part 60, Subpart III require continuous monitoring of recovery device operating parameters, the process vent is required to comply only with the provisions that are specified in A.2 for continuous monitoring of recovery device operating parameters and the associated testing, reporting, and record keeping.

(d) [40 CFR 63.110(d)(2)(ii)(D)]
If only the provisions of 40 CFR Part 60, Subpart III require continuous monitoring of recovery device operating parameters, the process vent is required to comply only with the provisions that are specified in 40 CFR Part 60, Subpart III for continuous monitoring of recovery device operating parameters and the associated testing, reporting, and record keeping.

iv. [40 CFR 63.110(d)(3)]
After the compliance dates specified in A.1, if the permittee of a process vent subject to A.2 that is also subject to the provisions of 40 CFR Part 60, Subpart III elects to control the process vent to the levels required in A.2.c.ii without calculating the TRE index value for the vent according to the procedures specified in A.2.e.iv then the permittee shall comply with the testing, monitoring, reporting, and record keeping provisions of A.2 and shall be exempt from the testing, monitoring, reporting, and record keeping provisions of 40 CFR Part 60, Subpart III.

v. [40 CFR 63.110(d)(4)]
After the compliance dates specified in A.1, a Group 1 process vent that is also subject to the provisions of 40 CFR Part 60, Subpart NNN is required to comply only with the provisions of A.2.

vi. [40 CFR 63.110(d)(5)]
After the compliance dates specified in A.1, the permittee of a Group 2 process vent that is also subject to the provisions of 40 CFR Part 60, Subpart NNN shall determine requirements according to A.2.a.vi.(1) and A.2.a.vi.(2).

(1) [40 CFR 63.110(d)(5)(i)]
If the Group 2 process vent has a TRE index value less than 1 as determined by the procedures in 40 CFR Part 60, Subpart NNN, the process vent is required to comply with the provisions in (a) through (c) below:

(a) [40 CFR 63.110(d)(5)(i)(A)]
The provisions in both A.2 and in 40 CFR Part 60, Subpart NNN for applicability determination and the associated record keeping and reporting;

(b) [40 CFR 63.110(d)(5)(i)(B)]
The provisions in both A.2 and in 40 CFR Part 60, Subpart NNN for process changes and recalculation of the TRE index value and the associated record keeping and reporting; and

(c) [40 CFR 63.110(d)(5)(i)(C)]
The control requirements in 40 CFR 60.662. The permittee may elect to comply with either the associated testing, monitoring, reporting, and record keeping requirements of 40 CFR Part 60, Subpart NNN or with the testing, monitoring, reporting, and record keeping requirements specified in A.2 for Group 1 process vents. The permittee shall indicate this decision in either the NCS specified in A.2.zb.ii or in an operating permit application or amendment.

(2) [40 CFR 63.110(d)(5)(ii)]
If the Group 2 process vent has a TRE index value greater than or equal to 1 as determined by the procedures in 40 CFR Part 60, Subpart NNN, the process vent is required to comply only with the provisions specified in (a) through (d) below:

(a) [40 CFR 63.110(d)(5)(ii)(A)]
The provisions in both A.2 and in 40 CFR Part 60, Subpart NNN for applicability determination and the associated record keeping and reporting;

(b) [40 CFR 63.110(d)(5)(ii)(B)]
The provisions in both A.2 and in 40 CFR Part 60, Subpart NNN for process changes and recalculation of the TRE index value and the associated record keeping and reporting;

(c) [40 CFR 63.110(d)(5)(ii)(C)]
If the provisions of both A.2 and 40 CFR Part 60, Subpart NNN require continuous monitoring of recovery device operating parameters, the process vent is required to comply only with the provisions that are specified in A.2 for continuous monitoring of recovery device operating parameters and the associated testing, reporting, and record keeping.

(d) [40 CFR 63.110(d)(5)(ii)(D)]
If only the provisions of 40 CFR Part 60, Subpart NNN require continuous monitoring of recovery device operating parameters, the process vent is required to comply only with the provisions that are specified in 40 CFR Part 60, Subpart NNN for continuous monitoring of recovery device operating parameters and the associated testing, reporting, and record keeping.

vii. [40 CFR 63.110(d)(6)]
After the compliance dates specified in A.1, if the permittee of a process vent subject to A.2 that is also subject to the provisions of 40 CFR Part 60, Subpart NNN elects to control the process vent to the levels required in A.2.c.ii without calculating the TRE index value for the vent according to the procedures specified in A.2.e.iv then the permittee shall comply with the testing, monitoring, reporting, and record keeping provisions of A.2 and shall be exempt from the testing, monitoring, reporting, and record keeping provisions of 40 CFR Part 60, Subpart NNN.

viii. [40 CFR 63.110(d)(7)]
After the compliance dates specified in A.1, a Group 1 process vent that is also subject to the provisions of 40 CFR Part 60, Subpart RRR is required to comply only with the provisions of A.2.

ix. [40 CFR 63.110(d)(8)]
After the compliance dates specified in A.1, the permittee of a Group 2 process vent that is also subject to the provisions of 40 CFR Part 60, Subpart RRR shall determine requirements according to A.2.a.ix.(1) and A.2.a.ix.(2).

(1) [40 CFR 63.110(d)(8)(i)]
If the Group 2 process vent has a TRE index value less than 1 as determined by the procedures in 40 CFR Part 60, Subpart RRR, the process vent is required to comply with the provisions in sections (a) through (c) below:

(a) [40 CFR 63.110(d)(8)(i)(A)]
The provisions in both A.2 and in 40 CFR Part 60, Subpart RRR for applicability determination and the associated record keeping and reporting;

(b) [40 CFR 63.110(d)(8)(i)(B)]
The provisions in both A.2 and in 40 CFR Part 60, Subpart RRR for process changes and recalculation of the TRE index value and the associated record keeping and reporting; and

(c) [40 CFR 63.110(d)(8)(i)(C)]
The control requirements in 40 CFR 60.702. The permittee may elect to comply with either the associated testing, monitoring, reporting, and record keeping requirements of 40 CFR Part 60, Subpart RRR or with the testing, monitoring, reporting, and record keeping requirements specified in A.2 for Group 1 process vents. The permittee shall indicate this decision in either the NCS specified in A.2.zb.ii or in an operating permit application or amendment.

(2) [40 CFR 63.110(d)(8)(ii)]
If the Group 2 process vent has a TRE index value greater than or equal to 1 as determined by the procedures in 40 CFR Part 60, Subpart RRR, the process vent is required to comply only with the provisions specified in (a) through (d) below:

(a) [40 CFR 63.110(d)(8)(ii)(A)]
The provisions in both A.2 and in 40 CFR Part 60, Subpart RRR for applicability determination and the associated record keeping and reporting;

(b) [40 CFR 63.110(d)(8)(ii)(B)]
The provisions in both A.2 and in 40 CFR Part 60, Subpart RRR for process changes and recalculation of the TRE index value and the associated record keeping and reporting;

(c) [40 CFR 63.110(d)(8)(ii)(C)]
If the provisions of both A.2 and 40 CFR Part 60, Subpart RRR require continuous monitoring of recovery device operating parameters, the process vent is required to comply only with the provisions that are specified in A.2 for continuous monitoring of recovery device operating parameters and the associated testing, reporting, and record keeping.

(d) [40 CFR 63.110(d)(8)(ii)(D)]
If only the provisions of 40 CFR Part 60, Subpart RRR require continuous monitoring of recovery device operating parameters, the process vent is required to comply only with the provisions that are specified in 40 CFR Part 60, Subpart RRR for continuous monitoring of recovery device operating parameters and the associated testing, reporting, and record keeping.

x. [40 CFR 63.110(d)(9)]
After the compliance dates specified in A.1, if the permittee of a process vent subject to A.2 that is also subject to the provisions of 40 CFR Part 60, Subpart RRR elects to control the process vent to the levels required in A.2.c.ii without calculating the TRE index value for the vent according to the procedures specified in A.2.e.iv then the permittee shall comply with the testing, monitoring, reporting, and record keeping provisions of A.2 and shall be exempt from the testing, monitoring, reporting, and record keeping provisions of 40 CFR Part 60, Subpart RRR.

xi. [40 CFR 63.110(e)(1)]
After the compliance dates specified in A.1, the permittee of a Group 1 or Group 2 wastewater stream that is also subject to the provisions of 40 CFR Part 61, Subpart FF is required to comply with the provisions of both A.2 and 40 CFR Part 61, Subpart FF. Alternatively, the permittee may elect to comply with the provisions of A.2.a.xi.(1) and A.2.a.xi.(2), which shall constitute compliance with the provisions of 40 CFR Part 61, Subpart FF.

(1) [40 CFR 63.110(e)(1)(i)]
Comply with the provisions of A.2; and

(2) [40 CFR 63.110(e)(1)(ii)]
For any Group 2 wastewater stream or organic stream whose benzene emissions are subject to control through the use of one or more treatment processes or waste management units under the provisions of 40 CFR Part 61, Subpart FF on or after December 31, 1992, comply with the requirements of A.2 for Group 1 wastewater streams.

2c. [40 CFR 63.113]
Process vent provisions-reference control technology

i [40 CFR 63.113(a)]
The permittee of a Group 1 process vent shall comply with the requirements of A.2.c.ii or A.2.c.iii.

ii. [40 CFR 63.113(a)(2), (a)(2)(i), & (a)(2)(ii)]
Reduce emissions of total organic HAPs by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. For combustion devices, the emission reduction or concentration shall be calculated on a dry basis, corrected to 3-percent oxygen, and compliance can be determined by measuring either organic HAPs or total organic carbon using the procedures in A.2.f. Compliance may be achieved by using any combination of combustion, recovery, and/or recapture devices, except that a recovery device may not be used to comply by reducing emissions of total organic HAPs by 98 weight-percent, unless A.2.c.ii.(1) through A.2.c.ii.(4) below are met:

(1) [40 CFR 63.113(a)(2)(ii)(A)]
The recovery device (and any combustion device or recapture device which operates in combination with the recovery device to reduce emissions of total organic HAPs by 98 weight-percent) was installed before 12/31/92.

(2) [40 CFR 63.113(a)(2)(ii)(B)]
The recovery device that will be used to reduce emissions of total organic HAPs by 98 weight-percent is the last recovery device before emission to the atmosphere.

(3) [40 CFR 63.113(a)(2)(ii)(C)]
The recovery device, alone or in combination with one or more combustion or recapture devices, is capable of reducing emissions of total organic HAPs by 98 weight-percent, but is not capable of reliably reducing emissions of total organic HAPs to a concentration of 20 parts per million by volume.

(4) [40 CFR 63.113(a)(2)(ii)(D)]
If the permittee disposed of the recovered material, the recovery device would comply with the requirements of A.2 for recapture devices.

iii. [40 CFR 63.113(a)(3)]
Achieve and maintain a TRE index value greater than 1.0 at the outlet of the final recovery device, or prior to release of the vent stream to the atmosphere if no recovery device is present. If the TRE index value is greater than 1.0, the vent shall comply with the provisions for a Group 2 process vent specified in either A.2.c.v or A.2.c.vi, whichever is applicable.

iv. [40 CFR 63.113(b)]
If a boiler or process heater is used to comply with the percent reduction requirement or concentration limit specified in A.2.c.ii, then the vent stream shall be introduced into the flame zone of such a device.

v. [40 CFR 63.113(d)]
For Group 2 process vents having a flow rate greater than or equal to 0.005 standard cubic meter per minute, a HAP concentration greater than or equal to 50 parts per million by volume, and a TRE index value greater than 1.0 but less than or equal to 4.0, the permittee shall maintain a TRE index value greater than 1.0; comply with the monitoring of recovery device parameters in A.2.d.ii or A.2.d.iii; comply with the TRE index calculations of A.2.e; and comply with the applicable reporting and record keeping provisions of A.2.g and A.2.h. Such process vents are not subject to any other provisions of A.2.d through A.2.h.

vi. [40 CFR 63.113(e)]
For Group 2 process vents with a TRE index greater than 4.0, the permittee shall maintain a TRE index value greater than 4.0; comply with the provisions for calculation of TRE index in A.2.e; and comply with the reporting and record keeping provisions in A.2.g.ii, A.2.h.iii, and A.2.h.viii. Such process vents are not subject to monitoring or any other provisions of A.2.c through A.2.h.

vii. [40 CFR 63.113(f)]
For Group 2 process vents with a flow rate less than 0.005 standard cubic meter per minute, the permittee shall maintain a flow rate less than 0.005 standard cubic meter per minute; comply with the Group determination procedures in A.2.e.i, A.2.e.ii, and A.2.e.v; and comply with the reporting and record keeping requirements in A.2.g.iii, A.2.h.iv, and A.2.h.ix. Such process vents are not subject to monitoring or any other provisions of A.2.d through A.2.h.

viii. [40 CFR 63.113(g)]
For Group 2 process vents with a concentration less than 50 parts per million by volume, the permittee shall maintain a concentration less than 50 parts per million by volume; comply with the Group determination procedures in A.2.e.i, A.2.e.ii, and A.2.e.v; and comply with the reporting and record keeping requirements in A.2.g.iv, A.2.h.v, and A.2.h.x. Such process vents are not subject to monitoring or any other provisions of A.2.d through A.2.h.

ix. [40 CFR 63.113(h)]
For process vents complying with A.2.c.ii, the permittee is not required to perform the group determination described in A.2.e for such process vents.

2d. [40 CFR 63.114]
Process vent provisions-monitoring requirements

i [40 CFR 63.114(a)]
The permittee shall install monitoring equipment specified in A.2.d.i.(1) and A.2.d.i.(2) for combustion devices and A.2.d.i.(3) for recovery or recapture devices used to comply with the requirements of A.2.c.ii. 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) [40 CFR 63.114(a)(1), (a)(1)(i), & (a)(1)(ii)]
Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required. Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs. Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(2) [40 CFR 63.114(a)(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.

(3) [40 CFR 63.114(a)(5)]
Where a recovery device or recapture device is used to comply with the requirements of A.2.c.ii, the permittee shall utilize the appropriate monitoring device identified in A.2.d.ii.

ii. [40 CFR 63.114(b)]
For process vents with a TRE index value greater than 1.0 as specified under A.2.c.iii or A.2.c.v that uses one or more recovery devices, the permittee shall install either an organic monitoring device equipped with a continuous recorder or the monitoring equipment specified in A.2.d.ii.(1), A.2.d.ii.(2), or A.2.d.ii.(3), depending on the type of recovery device used. All monitoring equipment shall be installed, calibrated, and maintained according to the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately. Monitoring is not required for process vents with TRE index values greater than 4.0 as specified in A.2.c.vi.

(1) [40 CFR 63.114(b)(1)]
Where an absorber is the final recovery device in the recovery system, a scrubbing liquid temperature monitoring device and a specific gravity monitoring device, each equipped with a continuous recorder shall be used;

(2) [40 CFR 63.114(b)(2)]
Where a condenser is the final recovery device in the recovery system, a condenser exit (product side) temperature monitoring device equipped with a continuous recorder shall be used;

(3) [40 CFR 63.114(b)(3)]
Where a carbon adsorber is the final recovery device in the recovery system, an integrating regeneration stream flow monitoring device having an accuracy of plus or minus 10 percent or better, capable of recording the total regeneration stream mass or volumetric flow 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 shall be used.

iii. [40 CFR 63.114(c)]
The permittee may request approval to monitor parameters other than those listed in A.2.d.i or A.2.d.ii. The request shall be submitted according to the procedures specified in A.2.za.v or A.2.zb.v. Approval shall be requested if the permittee:

(1) [40 CFR 63.114(c)(1)]
Uses a combustion device other than an incinerator, boiler, process heater, or flare; or

(2) [40 CFR 63.114(c)(2)]
Maintains a TRE greater than 1.0 but less than or equal to 4.0 without a recovery device or with a recovery device other than the recovery devices listed in A.2.d.ii; or

(3) [40 CFR 63.114(c)(3)]
Uses one of the combustion or recovery or recapture devices listed in A.2.d.i, but seeks to monitor a parameter other than those specified in A.2.d.i.

iv. [40 CFR 63.114(d)]
For process vents using a vent system that contains bypass lines that could divert a vent stream away from the control device used to comply with A.2.c.ii, the permittee shall comply with A.2.d.iv.(1) or A.2.d.iv.(2). 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 A.2.d.iv.

(1) [40 CFR 63.114(d)(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 A.2.h.i.(3). The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or

(2) [40 CFR 63.114(d)(2)]
Secure the bypass line 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 valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line.

v. [40 CFR 63.114(e)]
The permittee shall establish a range that indicates proper operation of the control or recovery device for each parameter monitored under A.2.h.i, A.2.h.ii, and A.2.h.iii. In order to establish the range, the information required in A.2.zb.ii shall be submitted in the NCS or the operating permit application or amendment. The range may be based upon a prior performance test conducted for determining compliance with a regulation promulgated by the EPA, and the permittee is not required to conduct a performance test under A.2.f, if the prior performance test was conducted using the same methods specified in A.2.f and either no process changes have been made since the test, or the permittee can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes.

2e. [40 CFR 63.115]
Process vent provisions-methods and procedures for process vent group determination

i [40 CFR 63.115(a), (a)(1), & (a)(2)]
For purposes of determining process vent stream flow rate, total organic HAPs or total organic carbon (TOC) concentration or TRE index value, as specified under A.2.e.ii, A.2.e.iii, or A.2.e.iv, the sampling site shall be after the last recovery device (if any recovery devices are present) but prior to the inlet of any control device that is present and prior to release to the atmosphere. Method 1 or 1A of 40 CFR Part 60, Appendix A, as appropriate, shall be used for selection of the sampling site. No traverse site selection method is needed for vents smaller than 0.10 meter in diameter.

ii. [40 CFR 63.115(b), (b)(1), & (b)(2)]
To demonstrate that a process vent stream flow rate is less than 0.005 standard cubic meter per minute in accordance with the Group 2 process vent definition of A.2.a, the permittee shall measure volumetric flow rate by using Method 2, 2A, 2C, or 2D of 40 CFR Part 60, Appendix A and the sampling site shall be selected as specified in A.2.e.i.

iii. [40 CFR 63.115(c)]
To demonstrate that a process vent stream has an organic HAP concentration below 50 parts per million by volume in accordance with the Group 2 process vent definition, the permittee shall measure either total organic HAP or TOC concentration using the following procedures:

(1) [40 CFR 63.115(c)(1)]
The sampling site shall be selected as specified in A.2.e.i.

(2) [40 CFR 63.115(c)(2)]
Method 18 or Method 25A of 40 CFR Part 60, Appendix A shall be used to measure concentration; alternatively, any other method or data that has been validated according to the protocol in Method 301 of 40 CFR Part 63, Appendix A may be used.

(3) [40 CFR 63.115(c)(3), (c)(3)(i), & (c)(3)(ii)]
Where Method 18 of 40 CFR Part 60, Appendix A is used, the minimum sampling time for each run shall be 1 hour in which either an integrated sample or four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15 minute intervals during the run. The concentration of either TOC (minus methane and ethane) or organic HAP shall be calculated according to A.2.e.iii.(3)(a) or A.2.e.iii.(3)(b), as applicable.

(a) The total organic carbon concentration (CTOC) is the sum of the concentrations of the individual components and shall be computed for each run using the equation listed in 40 CFR 63.115(c)(3)(ii)(A). Where:
CTOC = Concentration of TOC (minus methane and ethane), dry basis, parts per million by volume (ppmv).
Cji = Concentration of sample component j of the sample i, dry basis, ppmv.
n = Number of components in the sample.
x = Number of samples in the sample run.

(b) The total organic HAP concentration (CHAP) shall be computed according to the equation in A.2.e.iii.(3)(a) except that only the organic HAP species shall be summed. The list of organic HAP's is provided in Table 2 of A.1.p.

iv. [40 CFR 63.115(d)]
To determine the TRE index value, the permittee shall conduct a TRE determination and calculate the TRE index value according to the procedures in A.2.e.iv.(1) and A.2.e.iv.(2) and the TRE equation in A.2.e.iv.(3).

(1) [40 CFR 63.115(d)(1)]
Engineering assessment may be used to determine process vent stream flow rate, net heating value, TOC emission rate, and total organic HAP emission rate for the representative operating condition expected to yield the lowest TRE index value.

(a) [40 CFR 63.115(d)(1)(i)]
If the TRE index value calculated using such engineering assessment and the TRE equation in A.2.e.iv.(3) is greater than 4.0, then the permittee is not required to perform the measurements specified in A.2.e.iv.(2).

(b) [40 CFR 63.115(d)(1)(ii)]
If the TRE index value calculated using such engineering assessment and the TRE equation in A.2.e.iv.(3) is less than or equal to 4.0, then the permittee is required to perform the measurements specified in A.2.e.iv.(2) for group determination or consider the process vent a Group 1 vent and comply with the emission reduction specified in A.2.c.i.

(c) [40 CFR 63.115(d)(1)(iii)]
Engineering assessment includes, but is not limited to, the following: previous test results provided the tests are representative of current operating practices at the process unit; bench-scale or pilot-scale test data representative of the process under representative operating conditions; maximum flow rate, TOC emission rate, organic HAP emission rate, or net heating value limit specified or implied within a permit limit applicable to the process vent; and design analysis based on accepted chemical engineering principles, measurable process parameters, or physical or chemical laws or properties. All data, assumptions, and procedures used in the engineering assessment shall be documented. Examples of analytical methods include, but are not limited to:

(i) [40 CFR 63.115(d)(1)(iii)(D)(1)]
Use of material balances based on process stoichiometry to estimate maximum organic HAP concentrations,

(ii) [40 CFR 63.115(d)(1)(iii)(D)(2)]
Estimation of maximum flow rate based on physical equipment design such as pump or blower capacities,

(iii) [40 CFR 63.115(d)(1)(iii)(D)(3)]
Estimation of TOC or organic HAP concentrations based on saturation conditions,

(iv) [40 CFR 63.115(d)(1)(iii)(D)(4)]
Estimation of maximum expected net heating value based on the stream concentration of each organic compound or, alternatively, as if all TOC in the stream were the compound with the highest heating value.

(2) [40 CFR 63.115(d)(2)]
Except as provided in A.2.e.iv.(1), process vent stream flow rate, net heating value, TOC emission rate, and total organic HAP emission rate shall be measured and calculated according to the procedures in A.2.e.iv.(2)(a) through A.2.e.iv.(2)(e) and used as input to the TRE index value calculation in A.2.e.iv.(3).

(a) [40 CFR 63.115(d)(2)(i)]
The vent stream volumetric flow rate (Qs), in standard cubic meters per minute at 20 C, shall be determined using Method 2, 2A, 2C, or 2D of 40 CFR Part 60, Appendix A, as appropriate. If the vent stream tested passes through a final steam jet ejector and is not condensed, the stream volumetric flow shall be corrected to 2.3 percent moisture.

(b) [40 CFR 63.115(d)(2)(ii), (d)(2)(ii)(A), (B), & (C)]
The molar composition of the process vent stream, which is used to calculate net heating value, shall be determined using the following methods: Method 18 of 40 CFR Part 60, Appendix A to measure the concentration of each organic compound; American Society for Testing and Materials (ASTM) D1946-77 to measure the concentration of carbon monoxide and hydrogen; and Method 4 of 40 CFR Part 60, Appendix A to measure the moisture content of the stack gas.

(c) [40 CFR 63.63.115(d)(2)(iii)]
The net heating value of the vent stream shall be calculated using the equation listed in 40 CFR 63.115(d)(2)(iii). Where:
HT= Net heating value of the sample, megaJoule per standard cubic meter, where the net enthalpy per mole of vent stream is based on combustion at 25 C and 760 millimeters of mercury, but the standard temperature for determining the volume corresponding to one mole is 20 C, as in the definition of Qs (vent stream flow rate).
Kl= Constant, 1.740x10-7 (parts per million)-1 (gram-mole per standard cubic meter) (megaJoule per kilocalorie), where standard temperature for (gram-mole per standard cubic meter) is 20 C.
Bws= Water vapor content of the vent stream, proportion by volume; except that if the vent stream passes through a final steam jet and is not condensed, it shall be assumed that Bws=0.023 in order to correct to 2.3 percent moisture.

Cj= Concentration on a dry basis of compound j in parts per million, as measured for all organic compounds by Method 18 of 40 CFR Part 60, Appendix A and measured for hydrogen and carbon monoxide by ASTM D1946-77.
Hj= Net heat of combustion of compound j, kilocalorie per gram-mole, based on combustion at 25 C and 760 millimeters mercury. The heats of combustion of vent stream components shall be determined using ASTM D2382-76 if published values are not available or cannot be calculated.

(d) [40 CFR 63.115(d)(2)(iv)]
The emission rate of TOC (minus methane and ethane) (ETOC) and the emission rate of total organic HAP (EHAP) in the vent stream shall both be calculated using the equation listed in 40 CFR 63.115(d)(2)(iv). Where:
E= Emission rate of TOC (minus methane and ethane) or emission rate of total organic HAP in the sample, kilograms per hour.
K2= Constant, 2.494x10-6 (parts per million)-1 (gram-mole per standard cubic meter) (kilogram/gram) (minutes/hour), where standard temperature for (gram-mole per standard cubic meter) is 20 C.
Cj= Concentration on a dry basis of organic compound j in parts per million as measured by Method 18 of 40 CFR Part 60, Appendix A. If the TOC emission rate is being calculated, Cj includes all organic compounds measured minus methane and ethane; if the total organic HAP emission rate is being calculated, only organic HAP compounds listed in Table 2 in A.1.p are included.
Mj= Molecular weight of organic compound j, gram/gram-mole.
Qs= Vent stream flow rate, dry standard cubic meter per minute, at a temperature of 20 C.

(e) [40 CFR 63.115(d)(2)(v), (d)(2)(v)(A), (d)(2)(v)(A)(1), (2), (3), (4) & (d)(2)(v)(B)]
In order to determine whether a vent stream is halogenated, the mass emission rate of halogen atoms contained in organic compounds shall be calculated. The vent stream concentration of each organic compound containing halogen atoms (parts per million by volume, by compound) shall be determined based on the following procedures: process knowledge that no halogen or hydrogen halides are present in the process; applicable engineering assessment as discussed in A.2.e.iv.(1)(c); concentration of organic compounds containing halogens measured by Method 18 of 40 CFR Part 60, Appendix A; or any other method or data that has been validated according to the applicable procedures in Method 301 of Appendix A.

The equation listed in 40 CFR 63.115(d)(2)(v)(B) shall be used to calculate the mass emission rate of halogen atoms. Where:
E= mass of halogen atoms, dry basis, kilogram per hour.
K2= Constant, 2.494x10-6 (parts per million)-1 (kilogram-mole per standard cubic meter) (minute/hour), where standard temperature is 20 C.
Cj= Concentration of halogenated compound j in the gas stream, dry basis, ppmv.
Mji= Molecular weight of halogen atom i in compound j of the gas stream, kilogram per kilogram-mole.
Lji= Number of atoms of halogen i in compound j of the gas stream.
Q= Flow rate of gas stream, dry standard cubic meters per minute, determined according to A.2.e.iv.(1) or A.2.e.iv.(2)(a).
j= Halogenated compound j in the gas stream.
i= Halogen atom i in compound j of the gas stream.
n= Number of halogenated compounds j in the gas stream.
m= Number of different halogens i in each compound j of the gas stream.

(3) [40 CFR 63.115(d)(3)]
The permittee shall calculate the TRE index value of the vent stream using the equations and procedures in this section.

(a) The equation for calculating the TRE index value for a vent stream controlled by a flare or incinerator is listed in 40 CFR 63.115(d)(3)(i). Where:
TRE= TRE index value.
EHAP= Hourly emission rate of total organic HAP, kilograms per hour, as calculated in A.2.e.iv.(1) or A.2.e.iv.(2)(d).
Qs= Vent stream flow rate, standard cubic meters per minute, at a standard temperature of 20 C, as calculated in A.2.e.iv.(1) or A.2.e.iv.(2)(a).
HT= Vent stream net heating value, megaJoules per standard cubic meter, as calculated in A.2.e.iv.(1) or A.2.iv.(2)(c).
ETOC= Emission rate of TOC (minus methane and ethane), kilograms per hour, as calculated in A.2.e.iv.(1) or A.2.e.iv.(2)(d).
a,b,c,d = Coefficients presented in Table 1 of A.2.zc, selected in accordance with A.2.e.iv.(3)(b) and A.2.e.iv.(3)(c).

(b) The permittee of a nonhalogenated vent stream shall calculate the TRE index value based on the use of a flare, a thermal incinerator with 0 percent heat recovery, and a thermal incinerator with 70 percent heat recovery and shall select the lowest TRE index value. The permittee shall use the applicable coefficients in Table 1 of A.2.zc for nonhalogenated vent streams located within existing sources and the applicable coefficients in Table 2 of A.2.zc for nonhalogenated vent streams located within new sources.

(c) The permittee of a halogenated vent stream shall calculate the TRE index value based on the use of a thermal incinerator with 0 percent heat recovery, and a scrubber. The permittee shall use the applicable coefficients in Table 1 of A.2.zc for halogenated vent streams located within existing sources and the applicable coefficients in Table 2 of A.2.zc for halogenated vent streams located within new sources.

v. [40 CFR 63.115(e)]
The permittee of a Group 2 process vent shall recalculate the TRE index value, flow, or organic HAPs concentration for each process vent, as necessary to determine whether the vent is Group 1 or Group 2, whenever process changes are made that could reasonably be expected to change the vent to a Group 1 vent. Examples of process changes include, but are not limited to, changes in production capacity, production rate, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. For purposes of A.2.e.v, process changes do not include: process upsets; unintentional, temporary process changes; and changes that are within the range on which the original TRE calculation was based.

(1) [40 CFR 63.115(e)(1)]
The TRE index value, flow rate, or organic HAP concentration shall be recalculated based on measurements of vent stream flow rate, TOC, and organic HAP concentrations, and heating values as specified in A.2.e.i, A.2.e.ii, A.2.e.iii, and A.2.e.iv, as applicable, or on best engineering assessment of the effects of the change. Engineering assessments shall meet the specifications in A.2.e.iv.(1).

(2) [40 CFR 63.115(e)(2)]
Where the recalculated TRE index value is less than or equal to 1.0, or less than or equal to 4.0 but greater than 1.0, the recalculated flow rate is greater than or equal to 0.005 standard cubic meter per minute, or the recalculated concentration is greater than or equal to 50 ppmv, the permittee shall submit a report as specified in A.2.h.vii, A.2.h.viii, A.2.h.ix, or A.2.h.x and shall comply with the appropriate provisions in A.2.c by the dates specified in A.1.

2f. [40 CFR 63.116]
Process vent provisions, performance test methods and procedures to determine compliance

i [40 CFR 63.116(b)(3)]
The permittee is not required to conduct a performance test for 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 A.2.f and either no process changes have been made since the test, or the permittee can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes.

ii. [40 CFR 63.116(c)]
Except as provided in A.2.f.i, the permittee using a control device to comply with the organic HAP concentration limit or percent reduction efficiency requirements in A.2.c.ii shall conduct a performance test using the procedures in A.2.f.ii.(1) through A.2.f.ii.(4). The organic HAP concentration and percent reduction may be measured as either total organic HAP or as TOC (minus methane and ethane) according to the procedures specified.

(1) [40 CFR 63.116(c)(1)]
Method 1 or 1A of 40 CFR Part 60, Appendix A, as appropriate, shall be used for selection of the sampling sites.

(a) [40 CFR 63.116(c)(1)(i), (c)(1)(i)(A), & (c)(1)(i)(B)]
For determination of compliance with the 98 percent reduction of total organic HAP requirement of A.2.c.ii, sampling sites shall be located at the outlet of the control device and at the inlet of the control device, after the final product recovery device. If a process vent stream 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 process vent streams and primary and secondary fuels introduced into the boiler or process heater.

(b) [40 CFR 63.116(c)(1)(ii)]
For determination of compliance with the 20 ppmv total organic HAP limit in A.2.c.ii, the sampling site shall be located at the outlet of the control device.

(2) [40 CFR 63.116(c)(2)]
The gas volumetric flow rate shall be determined using Method 2, 2A, 2C, or 2D of 40 CFR Part 60, Appendix A, as appropriate.

(3) [40 CFR 63.116(c)(3)]
To determine compliance with the 20 ppmv total organic HAP limit in A.2.c.ii, the permittee shall use Method 18 of 40 CFR Part 60, Appendix A to measure either TOC (minus methane and ethane) or total organic HAP. 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 following procedures shall be used to calculate parts per million by volume concentration, corrected to 3 percent oxygen:

(a) [40 CFR 63.116(c)(3)(i)]
The minimum sampling time for each run shall be 1 hour in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15 minute intervals during the run.

(b) [40 CFR 63.116(c)(3)(ii)]
The concentration of either TOC (minus methane or ethane) or total organic HAP shall be calculated according to A.2.f.ii.(3)(c) or A.2.f.ii.(3)(d).

(c) The TOC concentration (CTOC) is the sum of the concentrations of the individual components and shall be computed for each run using the equation listed in 40 CFR 63.116(c)(3)(ii)(A). Where:
CTOC = Concentration of TOC (minus methane and ethane), dry basis, ppmv.
Cji = Concentration of sample components j of sample i, dry basis, ppmv.
n = Number of components in the sample.
x = Number of samples in the sample run.

(d) [40 CFR 63.116(c)(3)(ii)(B)]
The total organic HAP concentration (CHAP) shall be computed according to the equation in A.2.f.ii.(3)(c) except that only the organic HAP species shall be summed. The list of organic HAP's is provided in Table 2 of A.1.p.

(e) [40 CFR 63.116(c)(3)(iii)]
The concentration of TOC or total organic HAP shall be corrected to 3 percent oxygen if a combustion device is the control device according to A.2.f.ii.(3)(f) or A.2.f.ii.(3)(g).

(f) [40 CFR 63.116(c)(3)(iii)(A)]
The emission rate correction factor or excess air, integrated sampling and analysis procedures of Method 3B of 40 CFR Part 60, Appendix A shall be used to determine the oxygen concentration (%O2d). The samples shall be taken during the same time that the TOC (minus methane or ethane) or total organic HAP samples are taken.

(g) The concentration corrected to 3 percent oxygen (Cc) shall be computed using the equation listed in 40 CFR 63.116(c)(3)(iii)(B). Where:
Cc = Concentration of TOC or organic HAP corrected to 3 percent oxygen, dry basis, ppmv.
Cm = Concentration of TOC (minus methane and ethane) or organic HAP, dry basis, ppmv.

%O2d = Concentration of oxygen, dry basis, percent by volume.

(4) [40 CFR 63.116(c)(4)]
To determine compliance with the 98 percent reduction requirement of A.2.c.ii, the permittee shall use Method 18 of 40 CFR Part 60, Appendix A; alternatively, any other method or data that has been validated according to the applicable procedures in Method 301 of 40 CFR Part 63, Appendix A may be used. The following procedures shall be used to calculate percent reduction efficiency:

(a) [40 CFR 63.116(c)(4)(i)]
The minimum sampling time for each run shall be 1 hour in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time such as 15 minute intervals during the run.

(b) [40 CFR 63.116(c)(4)(ii)]
The mass rate of either TOC (minus methane and ethane) or total organic HAP (Ei, Eo) shall be computed in accordance with A.2.f.ii.(4)(c), A.2.f.ii.(4)(d), and A.2.f.ii.(4)(e).

(c) The equations listed in 40 CFR 63.116(c)(4)(ii)(A) shall be used. Where:
Cij, Coj = Concentration of sample component j of the gas stream at the inlet and outlet of the control device, respectively, dry basis, ppmv.
Ei, Eo= Mass rate of TOC (minus methane and ethane) or total organic HAP at the inlet and outlet of the control device, respectively, dry basis, kilogram per hour.
Mij, Moj = Molecular weight of sample component j of the gas stream at the inlet and outlet of the control device, respectively, gram/gram-mole.
Qi, Qo = Flow rate of gas stream at the inlet and outlet of the control device, respectively, dry standard cubic meter per minute.
K2 = Constant, 2.494 x 10-6 (parts per million)-1 (gram-mole per standard cubic meter) (kilogram/gram) (minute/hour), where standard temperature (gram-mole per standard cubic meter) is 20 C.

(d) [40 CFR 63.116(c)(4)(ii)(B)]
Where the mass rate of TOC is being calculated, all organic compounds (minus methane and ethane) measured by Method 18 of 40 CFR Part 60, Appendix A are summed using the equation in A.2.f.ii.(4)(c).

(e) [40 CFR 63.116(c)(4)(ii)(C)]
Where the mass rate of total organic HAP is being calculated, only the organic HAP species shall be summed using the equation in A.2.f.ii.(4)(c). The list of organic HAP's is provided in Table 2 of A.1.p.

(f) The percent reduction in TOC (minus methane and ethane) or total organic HAP shall be calculated using the equation listed in 40 CFR 63.116(c)(4)(iii). Where:
R = Control efficiency of control device, percent.
Ei = Mass rate of TOC (minus methane and ethane) or total organic HAP at the inlet to the control device as calculated under A.2.f.ii.(4)(c), kilograms TOC per hour or kilograms organic HAP per hour.
Eo = Mass rate of TOC (minus methane and ethane) or total organic HAP at the outlet of the control device, as calculated under A.2.f.ii.(4)(c), kilograms TOC per hour or kilograms organic HAP per hour.

(g) [40 CFR 63.116(c)(4)(iv)]
If the process vent stream 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 (minus methane and ethane) across the device shall be determined by comparing the TOC (minus methane and ethane) or total organic HAP in all combusted vent streams and primary and secondary fuels with the TOC (minus methane and ethane) or total organic HAP exiting the combustion device, respectively.

2g. [40 CFR 63.117]
Process vent provisions-reporting and record keeping requirements for group and TRE determinations and performance tests

i [40 CFR 63.117(a)]
Each permittee subject to the control provisions for Group 1 vent streams in A.2.c.i, A.2.c.ii, or A.2.c.iii or the provisions for Group 2 vent streams with a TRE index value greater than 1.0 but less than or equal to 4.0 in A.2.c.vi shall:

(1) [40 CFR 63.117(a)(1)]
Keep an up-to-date, readily accessible record of the data specified in A.2.g.i.(4) through A.2.g.i.(6), as applicable, and

(2) [40 CFR 63.117(a)(2)]
Include the data in A.2.g.i.(4) through A.2.g.i.(6) in the NCS report as specified in A.2.zb.ii.

(3) [40 CFR 63.117(a)(3)]
If any subsequent TRE determinations or performance tests are conducted after the NCS has been submitted, report the data in A.2.g.i.(4) through A.2.g.i.(6) in the next Periodic Report as specified in A.2.zb.iii.

(4) [40 CFR 63.117(a)(4)]
Record and report the following when using a combustion device to achieve a 98 weight percent reduction in organic HAP or an organic HAP concentration of 20 ppmv, as specified in A.2.c.i:

(a) [40 CFR 63.117(a)(4)(i) and Table 3]
The parameter monitoring results for incinerators, catalytic incinerators, boilers or process heaters specified below, and averaged over the same time period of the performance testing.

(i) Thermal Incinerator - The permittee shall monitor and maintain continuous records of the firebox temperature of the thermal incinerator. The permittee shall record and report the firebox temperature averaged over the full period of the performance test. The permittee shall record the daily average firebox temperature for each operating day and shall report all daily average temperatures that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected.

(ii) Catalytic incinerator - The permittee shall monitor and maintain continuous records of the temperature upstream and downstream of the catalyst bed of the catalytic incinerator. The permittee shall record and report the upstream and downstream temperatures and the temperature difference across the catalyst bed averaged over the full period of the performance test. The permittee shall record the daily average upstream temperature and temperature difference across the catalyst bed for each operating day. The permittee shall report all daily average upstream temperatures that are outside the range established in the NCS or operating permit. The permittee shall report all daily average temperature differences across the catalyst bed that are outside the range established in the NCS or operating permit. The permittee shall report all operating days when insufficient monitoring data are collected.

(iii) Boiler or process heater with a design input capacity less than 44 megawatts and vent stream is not introduced with or as the primary fuel. The permittee shall monitor and maintain continuous records of the firebox temperature. The permittee shall record and report the firebox temperature averaged over the full period of the performance test. The permittee shall record the daily average firebox temperature for each operating day. The permittee shall report all daily average firebox temperatures that are outside the

range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected.

(iv) All control devices - The permittee shall comply with 1) or 2) below:

1) The permittee shall monitor for the presence of flow diverted to the atmosphere from the control device. The permittee shall maintain hourly records of whether the flow indicator was operating and whether diversion was detected at any time during each hour. The permittee shall record and report the times and durations of all periods when the vent stream is diverted through a bypass line or the monitor is not operating.

2) The permittee shall perform monthly inspections of sealed valves and maintain records that monthly inspections were performed. The permittee shall record and report all monthly inspections that show the valves are moved to the diverting position or the seal has been changed.

(v) Recapture devices - The permittee shall monitor the appropriate parameter identified in A.2.g.i.(5) when the term "recapture" is substituted for "recovery." The permittee shall maintain records and submit reports for monitored parameters identified in A.2.g.i.(5)

(b) [40 CFR 63.117(a)(4)(ii)]
For an incinerator, the percent reduction of organic HAP or TOC achieved by the incinerator determined as specified in A.2.f.ii, or the concentration of organic HAP or TOC (ppmv, by compound) determined as specified in A.2.f.ii at the outlet of the incinerator on a dry basis corrected to 3 percent oxygen.

(c) [40 CFR 63.117(a)(4)(iii)]
For a boiler or process heater, a description of the location at which the vent stream is introduced into the boiler or process heater.

(d) [40 CFR 63.117(a)(4)(iv)]
For a boiler or process heater with a design heat input capacity of less than 44 megawatts and where the process 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, or the concentration of organic HAP or TOC (ppmv, by compound) determined

as specified in A.2.f.ii at the outlet of the combustion device on a dry basis corrected to 3 percent oxygen.

(5) [40 CFR 63.117(a)(7), (a)(7)(i), Table 4, and 63.117(a)(7)(ii)]
The parameter monitoring results for condensers or absorbers as the final recovery device shall be averaged over the same time period of the measurements of vent stream flow rate and concentration used in the TRE determination (both measured while the vent stream is normally routed and constituted). Record and report the following when achieving and maintaining a TRE index value greater than 1.0 but less than 4.0 as specified in A.2.c.iii or A.2.c.v:

(a) Condenser - The permittee shall monitor the exit (product side) temperature of the condenser. The permittee shall maintain continuous records of the exit temperature and shall record and report the exit temperature averaged over the full period of the TRE determination. The permittee shall record the daily average exit temperature for each operating day and shall report all daily average exit temperatures that are outside the range established in the NCS, operating permit, or most recent Periodic Report.

(b) Absorber - The permittee shall monitor the items in sections (i) and (ii) below:

(i) The permittee shall monitor the exit temperature of the absorbing liquid. The permittee shall maintain continuous records of the exit temperature and shall record and report the exit temperature of the absorbing liquid averaged over the full period of the TRE determination. The permittee shall record the daily average exit temperature of the absorbing liquid for each operating day and shall report all the daily average exit temperatures of the absorbing liquid that are outside the range established in the NCS, operating permit, or most recent Periodic Report.

(ii) The permittee shall monitor the exit specific gravity of the absorbing liquid. The permittee shall maintain continuous records of the specific gravity and shall record and report the exit specific gravity averaged over the full period of the TRE determination. The permittee shall record the daily average exit specific gravity for each operating day and shall report all daily average exit specific gravity values that are outside the range established in the NCS, operating permit, or most recent Periodic Report.

(c) The measurements and calculations performed to determine the TRE index value of the vent stream.

(6) [40 CFR 63.117(a)(8)]
Record and report the halogen concentration in the process vent stream determined according to the procedures specified in A.2.e.iv.(2)(e).

ii. [40 CFR 63.117(b)]
The permittee of a Group 2 process vent with a TRE index greater than 4.0 as specified in A.2.c.vii, shall maintain records and submit as part of the NCS specified in A.2.ab, measurements, engineering assessments, and calculations performed to determine the TRE index value of the vent stream. Documentation of engineering assessments shall include all data, assumptions, and procedures used for the engineering assessments, as specified in A.2.e.iv.(1).

iii. [40 CFR 63.117(c)]
The permittee of a group 2 process vent based on a flow rate less than 0.005 standard cubic meter per minute must submit to USEPA Region V, with a copy to the Portsmouth Local Air Agency, the flow rate measurement using methods and procedures specified in A.2.e.i and A.2.e.ii with the NCS specified in A.2.zb.

iv. [40 CFR 63.117(a)(7)(d)]
The permittee of a Group 2 process vent based on organic HAP or TOC concentration less than 50 ppmv must submit an organic HAP or TOC concentration measurement using the methods and procedures specified in A.2.e.i and A.2.e.iii with the NCS specified in A.2.zb.

v. [40 CFR 63.117(f)]
For each parameter monitored according to A.2.g.i.(4)(a) or A.2.g.i.(5)(a), the permittee shall establish a range for the parameter that indicates proper operation of the control or recovery device. In order to establish the range, the information required in A.2.zb.ii shall be submitted in the NCS or the operating permit application or amendment.

2h. [40 CFR 63.118]
Process vent provisions-Periodic Reporting and record keeping requirements

i [40 CFR 63.118(a)]
Where a control device is used to comply with A.2.c.ii, the permittee shall keep the following records up-to-date and readily accessible:

(1) [40 CFR 63.118(a)(1)]
Continuous records of the equipment operating parameters specified to be monitored under A.2.d.i and listed in A.2.g.i.(4)(a).

(2) [40 CFR 63.118(a)(2)]
Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in A.2.zb.vi.

(3) [40 CFR 63.118(a)(3)]
Hourly records of whether the flow indicator specified under A.2.d.iv.(1) was operating and whether flow was detected at any time under the hour, as well as records of the times and durations of all periods when the vent stream is diverted from the control device or the monitor is not operating.

(4) [40 CFR 63.118(a)(4)]
Where a seal mechanism is used to comply with A.2.d.iv.(2), hourly records of flow are not required. In such cases, the permittee shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration 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 lock has been checked out, and records of any car-seal that has broken.

ii. [40 CFR 63.118(b)]
Where a recovery device is used or other means to achieve and maintain a TRE index value greater than 1.0 but less than 4.0 as specified in A.2.c.iii or A.2.c.vi, the permittee shall keep the following records up-to-date and readily accessible:

(1) [40 CFR 63.118(b)(1)]
Continuous records of the equipment operating parameters specified to be monitored under A.2.d.ii and listed in A.2.g.i.(5)(a) or specified in accordance with A.2.d.iii and A.2.d.v; and

(2) [40 CFR 63.118(b)(2)]
Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in A.2.ab.vi. If carbon adsorber regeneration stream flow and carbon bed regeneration temperature are monitored, the records specified in A.2.g.i.(5)(a) shall be kept instead of the daily averages.

iii. [40 CFR 63.118(c)]
Where compliance is demonstrated with the TRE index value greater than 4.0 under A.2.c.vii or greater than 1.0 under A.2.c.iii or A.2.c.vi, the permittee shall keep up-to-date, readily accessible records of:

(1) [40 CFR 63.118(c)(1)]
Any process changes as defined in A.2.e.v; and

(2) [40 CFR 63.118(c)(2)]
Any recalculation of the TRE index value pursuant to A.2.e.v.

iv. [40 CFR 63.118(d)]
Where compliance is demonstrated by maintaining a flow rate less than 0.005 standard cubic meter per minute under A.2.c.vii, the permittee shall keep up-to-date, readily accessible records of:

(1) [40 CFR 63.118(d)(1)]
Any process changes as defined in A.2.e.v that increase the vent stream flow rate,

(2) [40 CFR 63.118(d)(2)]
Any recalculation or measurement of the flow rate pursuant to A.2.e.v, and

(3) [40 CFR 63.118(d)(3)]
If the flow rate increases to 0.005 standard cubic meter per minute or greater as a result of the process change, the TRE determination performed according to the procedures of A.2.e.iv.

v. [40 CFR 63.118(e)]
Where compliance is demonstrated by maintaining an organic HAP concentration less than 50 ppmv organic HAP concentration under A.2.c.viii, the permittee shall keep up-to-date, readily accessible records of:

(1) [40 CFR 63.118(e)(1)]
Any process changes as defined in A.2.e.v that increase the organic HAP concentration of the process vent stream;

(2) [40 CFR 63.118(e)(2)]
Any recalculation or measurement of the concentration pursuant to A.2.e.v; and

(3) [40 CFR 63.118(e)(3)]
If the organic HAP concentration increases to 50 ppmv or greater as a result of the process change, the TRE determination performed according to the procedures of A.2.e.iv.

vi. [40 CFR 63.118(f)]
Where compliance is demonstrated in accordance with the requirements of A.2.c, the permittee shall submit to USEPA Region V, with a copy to the Portsmouth Local Air Agency, Periodic Reports of the following recorded information according to the schedule in A.2.zb:

(1) [40 CFR 63.118(f)(1)]

Reports of daily average values of monitored parameters for all operating days when the daily average values recorded under sections A.2.h.i and A.2.h.ii were outside the ranges established in the NCS or operating permit.

(2) [40 CFR 63.118(f)(2)]
For Group 1 points, reports of the duration of periods when monitoring data is not collected for each excursion caused by insufficient monitoring data as defined in A.2.zb.iii.(2)(a)(i).

(3) [40 CFR 63.118(f)(3)]
Reports of the times and durations of all periods recorded under A.2.h.i.(3) when the vent stream is diverted from the control device through a bypass line.

(4) [40 CFR 63.118(f)(4)]
Reports of all periods recorded under A.2.h.i.(4) 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.

vii. [40 CFR 63.118(g)]
Whenever a process change, as defined in A.2.e.v, is made that causes a Group 2 process vent to become a Group 1 process vent, the permittee shall submit a report within 180 calendar days after the process change as specified in A.2.za.viii. The report shall include:

(1) [40 CFR 63.118(g)(1)]
A description of the process change;

(2) [40 CFR 63.118(g)(2)]
The results of the recalculation of the flow rate, organic HAP concentration, and TRE index value required under A.2.e.v and recorded under A.2.h.iii, A.2.h.iv, or A.2.h.v; and

(3) [40 CFR 63.118(g)(3)]
A statement that the permittee will comply with the provisions of A.2.c for Group 1 process vents by the dates specified in A.1.

viii. [40 CFR 63.118(h)]
Whenever a process change, as defined in A.2.e.v, is made that causes a Group 2 process vent with a TRE greater than 4.0 to become a Group 2 process vent with a TRE less than 4.0, the permittee shall submit a report within 180 calendar days after the process change. The report may be submitted as part of the next Periodic Report. The report shall include:

(1) [40 CFR 63.118(h)(1)]
A description of the process change;

(2) [40 CFR 63.118(h)(2)]
The results of the recalculation of the TRE index value required under A.2.e.v and recorded under A.2.h.iii; and

(3) [40 CFR 63.118(h)(3)]
A statement that the permittee will comply with the requirements specified in A.2.c.vi.

ix. [40 CFR 63.118(i)]
Whenever a process change, as defined in A.2.e.v, is made that causes a Group 2 process vent with a flow rate less than 0.005 standard cubic meter per minute to become a Group 2 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 permittee shall submit a report within 180 calendar days after the process change. The report may be submitted as part of the next Periodic Report. The report shall include:

(1) [40 CFR 63.118(i)(1)]
A description of the process change;

(2) [40 CFR 63.118(i)(2)]
The results of the recalculation of the flow rate and the TRE determination required under A.2.e.v and recorded under A.2.h.iv; and

(3) [40 CFR 63.118(i)(3)]
A statement that the permittee will comply with the requirements specified in A.2.c.vi.

x. [40 CFR 63.118(j)]
Whenever a process change, as defined in A.2.e.v, is made that causes a Group 2 process vent with an organic HAP concentration less than 50 ppmv to become a Group 2 process vent with an organic HAP concentration of 50 ppmv or greater and a TRE index value less than or equal to 4.0, the permittee shall submit a report within 180 calendar days after the process change. The report may be submitted as part of the next Periodic Report. The report shall include:

(1) [40 CFR 63.118(j)(1)]
A description of the process change,

(2) [40 CFR 63.118(j)(2)]
The results of the recalculation of the organic HAP concentration and the TRE determination required under A.2.e.v and recorded under A.2.h.v, and

(3) [40 CFR 63.118(j)(3)]
A statement that the permittee will comply with the requirements specified in A.2.c.vi.

xi. [40 CFR 63.118(k)]
The permittee is not required to submit a report of a process change if one of the conditions listed in A.2.h.xi.(1), A.2.h.xi.(2), A.2.h.xi.(3), or A.2.h.xi.(4) is met.

(1) [40 CFR 63.118(k)(1)]
The process change does not meet the definition of a process change in A.2.e.v, or

(2) [40 CFR 63.118(k)(2)]
The vent stream flow rate is recalculated according to A.2.e.v and the recalculated value is less than 0.005 standard cubic meter per minute, or

(3) [40 CFR 63.118(k)(3)]
The organic HAP concentration of the vent stream is recalculated according to A.2.e.v and the recalculated value is less than 50 ppmv, or

(4) [40 CFR 63.118(k)(4)]
The TRE index value is recalculated according to A.2.e.v and the recalculated value is greater than 4.0.

2i. [40 CFR 63.123(a)]
Storage vessel provisions - For each Group 2 storage vessel, the permittee 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 2 status and is in operation.

2j. [40 CFR 63.130(f)]
Transfer operations provisions - For each Group 2 transfer rack, the permittee shall record, update annually, and maintain the information specified in A.2.j.i through A.2.j.iii in a readily accessible location on site:

i [40 CFR 63.130(f)(1)]
An analysis demonstrating the design and actual annual throughput of the transfer rack;

ii. [40 CFR 63.130(f)(2)]
An analysis documenting the weight-percent organic HAP's in the liquid loaded. Examples of acceptable documentation include but are not limited to analyses of the material and engineering calculations.

iii. [40 CFR 63.130(f)(3), (f)(3)(i), and (f)(3)(ii)]
An analysis documenting the annual rack weighted average HAP partial pressure of the transfer rack. For Group 2 transfer racks that are limited to transfer of organic HAP's with partial pressures less than 10.3 kilopascals, documentation is required of the organic HAP's (by compound) that are transferred. The rack weighted average partial pressure does not need to be calculated. For racks transferring one or more organic HAP's with

partial pressures greater than 10.3 kilopascals, as well as one or more organic HAP's with partial pressures less than 10.3 kilopascals, a rack weighted partial pressure shall be documented. The rack weighted average HAP partial pressure shall be weighted by the annual throughput of each chemical transferred.

2k. [40 CFR 63.132]
Process wastewater provisions-general

i [40 CFR 63.132(a)]
The permittee shall comply with the requirements in A.2.k.i.(1) through A.2.k.i.(3), no later than the applicable dates specified in A.1 for process wastewater streams located at existing sources.

(1) [40 CFR 63.132(a)(1)]
The permittee shall determine whether each wastewater stream requires control for compounds listed in Table 9 of A.2.zc by complying with the requirements in either A.2.k.i.(1)(a) or A.2.k.i.(1)(b), and complying with the requirements in A.2.k.i.(1)(c).

(a) Comply with A.2.k.ii, determining whether the wastewater stream is Group 1 or Group 2 for compounds listed in Table 9 of A.2.zc; or

(b) Comply with A.2.k.v, designating the wastewater stream as a Group 1 wastewater stream.

(c) Comply with A.2.k.vi.

(2) [40 CFR 63.132(a)(2)]
The permittee shall comply with A.2.k.i.(2)(a) through A.2.k.i.(2)(d) for wastewater streams that are Group 1 for compounds listed in Table 9 of A.2.zc.

(a) [40 CFR 63.132(a)(2)(i), (a)(2)(i)(A), & (a)(2)(i)(B)]
Comply with the applicable requirements for wastewater tanks, surface impoundments, containers, individual drain systems, and oil/water separators as specified in A.2.l through A.2.p, except as provided in this section and A.2.q.i.(2). The waste management units may be equipped with pressure relief devices that vent directly to the atmosphere provided the pressure relief device is not used for planned or routine venting of emissions. The pressure relief device remains in a closed position at all times except when it is necessary for the pressure relief device to open for the purpose of preventing physical damage or permanent deformation of the waste management unit in accordance with good engineering and safety practices.

(b) [40 CFR 63.132(a)(2)(ii)]
Comply with the applicable requirements for control of compounds listed in Table 9 of A.2.zc as specified in A.2.q. Alternatively, the permittee may elect to comply with the treatment provisions specified in A.2.k.vii.

(c) [40 CFR 63.132(a)(2)(iii)]
Comply with the applicable monitoring and inspection requirements specified in A.2.t.

(d) [40 CFR 63.132(a)(2)(iv)]
Comply with the applicable record keeping and reporting requirements specified in A.2.w and A.2.x.

(3) [40 CFR 63.132(a)(3)]
The permittee shall comply with the applicable record keeping and reporting requirements of sections A.2.w and A.2.x for Group 2 wastewater streams.

ii. [40 CFR 63.132(b)]
The permittee shall comply with the requirements in A.2.k.ii.(1) through A.2.k.ii.(4) for process wastewater streams located at new sources, no later than the applicable dates specified in A.1.

(1) [40 CFR 63.132(b)(1)]
The permittee shall determine whether each wastewater stream requires control for compounds listed in Table 8 of A.2.zc by complying with the requirements in either A.2.k.ii.(1)(a) or A.2.k.ii.(1)(b), and complying with the requirements in A.2.k.ii.(1)(c).

(a) [40 CFR 63.132(b)(1)(i)]
Comply with A.2.k.iv, determining whether the wastewater stream is Group 1 or Group 2 for compounds listed in Table 8 of A.2.zc; or

(b) [40 CFR 63.132(b)(1)(ii)]
Comply with A.2.k.v, designating the wastewater stream as a Group 1 wastewater stream for compounds listed in Table 8 of A.2.zc.

(c) [40 CFR 63.132(b)(1)(iii)]
Comply with A.2.k.vi.

(2) [40 CFR 63.132(b)(2)]
The permittee shall determine whether each wastewater stream requires control for compounds listed in Table 9 of A.2.zc by complying with the requirements in either A.2.k.ii.(2)(a) or A.2.k.ii.(2)(b), and comply with the requirements in A.2.k.ii.(2)(c).

(a) [40 CFR 63.132(b)(2)(i)]
Comply with A.2.k.iii, determining whether the wastewater stream is Group 1 or Group 2 for compounds listed in Table 9 of A.2.zc; or

(b) [40 CFR 63.132(b)(2)(ii)]
Comply with A.2.k.v, designating the wastewater stream as a Group 1 wastewater stream.

(c) [40 CFR 63.132(b)(1)(iii)]
Comply with A.2.k.vi.

(3) [40 CFR 63.132(b)(3)]
The permittee shall comply with A.2.k.ii.(3)(a) through A.2.k.ii.(3)(d) for wastewater streams that are Group 1 for Table 8 and/or Table 9 compounds.

(a) [40 CFR 63.132(b)(3)(i)]
Comply with the applicable requirements for wastewater tanks, surface impoundments, containers, individual drain systems, and oil/water separators specified in the requirements of A.2.l through A.2.p, except as provided in this section and A.2.q.i.(2). The waste management units may be equipped with pressure relief devices that vent directly to the atmosphere provided the pressure relief device is not used for planned or routine venting of emissions. The pressure relief device remains in a closed position at all times except when it is necessary for the pressure relief device to open for the purpose of preventing physical damage or permanent deformation of the waste management unit in accordance with good engineering and safety practices.

(b) [40 CFR 63.132(b)(3)(ii)]
Comply with the applicable requirements for control of compounds listed in Table 8 of A.2.zc specified in A.2.q. Alternatively, the permittee may elect to comply with the provisions specified in A.2.k.vii.

(c) [40 CFR 63.132(b)(3)(iii)]
Comply with the applicable monitoring and inspection requirements specified in A.2.t.

(d) [40 CFR 63.132(b)(3)(iv)]
Comply with the applicable record keeping and reporting requirements specified in A.2.w and A.2.x.

(4) [40 CFR 63.132(b)(4)]
The permittee shall comply with the record keeping and reporting requirements specified in A.2.w and A.2.x for wastewater streams that are Group 2 for both Table 8 and Table 9 compounds.

iii. [40 CFR 63.132(c)]
This section provides instructions for determining whether a wastewater stream is Group 1 or Group 2 for compounds listed in Table 9 of A.2.zc. Total annual average concentration shall be determined according to the procedures specified in A.2.u.iii.

(1) [40 CFR 63.132(c)(1)]
A wastewater stream is a Group 1 wastewater stream for compounds listed in Table 9 of A.2.zc if:

(a) [40 CFR 63.132(c)(1)(i)]
The total annual average concentration of Table 9 compounds is greater than or equal to 10,000 parts per million by weight at any flow rate; or

(b) [40 CFR 63.132(c)(1)(ii)]
The total annual average concentration of Table 9 compounds is greater than or equal to 1,000 parts per million by weight and the annual average flow rate is greater than or equal to 10 liters per minute.

(2) [40 CFR 63.132(c)(2)]
A wastewater stream is a Group 2 wastewater stream for Table 9 compounds if it is not a Group 1 wastewater stream for Table 9 compounds by the criteria in A.2.k.iii.(1).

iv. [40 CFR 63.132(d)]
This section provides instructions for determining whether a wastewater stream is Group 1 or Group 2 for compounds listed in Table 8 of A.2.zc. Annual average concentration for each Table 8 compound shall be determined according to the procedures specified in A.2.u.ii. Annual average flow rate shall be determined according to the procedures specified in A.2.u.iii.

(1) [40 CFR 63.132(d)(1)]
A wastewater stream is a Group 1 wastewater stream for Table 8 compounds if the annual average flow rate is 0.02 liter per minute or greater and the annual average concentration of any individual Table 8 compound is 10 parts per million by weight or greater.

(2) [40 CFR 63.132(d)(2)]
A wastewater stream is a Group 2 wastewater stream for Table 8 compounds if the annual average flow rate is less than 0.02 liter per minute or the annual

average concentration for each individual Table 8 compound is less than 10 parts per million by weight.

v. [40 CFR 63.132(e)]
The permittee may elect to designate a wastewater stream a Group 1 wastewater stream in order to comply with A.2.k.i or A.2.k.ii. To designate a wastewater stream or a mixture of wastewater streams a Group 1 wastewater stream, the procedures specified in A.2.k.v.(1), A.2.k.v.(2), and A.2.u.i.(2) shall be followed.

(1) [40 CFR 63.132(e)(1)]
From the point of determination for each wastewater stream that is included in the Group 1 designation to the location where the permittee elects to designate such wastewater stream(s) as a Group 1 wastewater stream, the permittee shall comply with all applicable emission suppression requirements specified in A.2.l through A.2.p.

(2) [40 CFR 63.132(e)(2)]
From the location where the permittee designates a wastewater stream or mixture of wastewater streams to be a Group 1 wastewater stream, such Group 1 wastewater stream shall be managed in accordance with all applicable emission suppression requirements specified in A.2.l through A.2.p and with the treatment requirements in A.2.q.

vi. [40 CFR 63.132(f)]
The permittee shall not discard liquid or solid organic materials with a concentration of greater than 10,000 parts per million of Table 9 compounds (as determined by analysis of the stream composition, engineering calculations, or process knowledge, according to the provisions of A.2.u.ii) from a CMPU to water or wastewater, unless the receiving stream is managed and treated as a Group 1 wastewater stream. This prohibition does not apply to materials from the activities listed in sections A.2.k.vi.(1) through A.2.k.vi.(4) below:

(1) equipment leaks;

(2) activities included in maintenance or startup/shutdown/malfunction plans;

(3) spills; or

(4) samples of a size not greater than reasonably necessary for the method of analysis that is used.

vii. [40 CFR 63.132(g)]
The permittee may elect to transfer a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream to an off-site treatment operation.

(1) [40 CFR 63.132(g)(1)(i)]
The permittee transferring the wastewater stream or residual shall comply with the provisions specified in A.2.l through A.2.p for each waste management unit that receives or manages a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream prior to shipment or transport.

(2) [40 CFR 63.132(g)(1)(ii)]
The permittee transferring the wastewater stream or residual shall include a notice with the shipment or transport of each Group 1 wastewater stream or residual removed from a Group 1 wastewater stream. The notice shall state that the wastewater stream or residual contains organic HAPs that are to be treated in accordance with the provisions A.2. When the transport is continuous or ongoing (for example, discharge to a publicly-owned treatment works), the notice shall be submitted to the treatment operator initially and whenever there is a change in the required treatment.

(3) [40 CFR 63.132(g)(2)]
The permittee may not transfer the wastewater stream or residual unless the transferee has submitted to USEPA Region V, with a copy to the Portsmouth Local Air Agency, a written certification that the transferee will manage and treat any Group 1 wastewater stream or residual removed from a Group 1 wastewater stream received from a source subject to the requirements of section A.2 in accordance with the requirements of either A.2.l through A.2.x, or A.1.u. The certifying entity may revoke the written certification by sending a written statement to USEPA Region V, with a copy to the Portsmouth Local Air Agency, and the permittee giving at least 90 days notice that the certifying entity is rescinding acceptance of responsibility for compliance with the regulatory provisions listed in this section. Upon expiration of the notice period, the permittee may not transfer the wastewater stream or residual to the treatment operation.

(4) [40 CFR 63.132(g)(3)]
By providing this written certification to USEPA Region V, with a copy to the Portsmouth Local Air Agency, the certifying entity accepts responsibility for compliance with the regulatory provisions listed in A.2.k.vii.(3) with respect to any shipment of wastewater or residual covered by the written certification. Failure to abide by any of those provisions with respect to such shipments may result in enforcement action by U. S. EPA, and/or Ohio EPA, against the certifying entity in accordance with the enforcement provisions applicable to violations of these provisions by the permittee.

(5) [40 CFR 63.132(g)(4)]
Written certifications and revocation statements from the transferees of wastewater or residuals shall be signed by the responsible official of the certifying

entity, provide the name and address of the certifying entity, and be sent to USEPA Region V, with a copy to the Portsmouth Local Air Agency. Such written certifications are not transferable by the treater.

2l. [40 CFR 63.133]
Process wastewater provisions-wastewater tanks

i [40 CFR 63.133(a)]
For each wastewater tank that receives, manages, or treats a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream, the permittee shall comply with the requirements of either A.2.l.i.(1) or A.2.l.i.(2) as follows:

[40 CFR Part 63, Subpart G, Table 10]
For tanks with a capacity less than 75 cubic meters, the permittee shall comply with requirements of A.2.l.i.(1).

For tanks with a capacity equal to or greater than 75 but less than 151 cubic meters and a vapor pressure less than 13.1 kPa, the permittee shall comply with requirements of A.2.l.i.(1).

For tanks with a capacity equal to or greater than 75 but less than 151 cubic meters and a vapor pressure equal to or greater than 13.1 kPa, the permittee shall comply with requirements of A.2.l.i.(2).

For tanks with a capacity equal to or greater than 151 cubic meters and a vapor pressure less than 5.2 kPa, the permittee shall comply with requirements of A.2.l.i.(1).

For tanks with a capacity equal to or greater than 151 cubic meters and a vapor pressure equal to or greater than 5.2 kPa, the permittee shall comply with requirements of A.2.l.i.(2).

(1) [40 CFR 63.133(a)(1)]
The permittee shall operate and maintain a fixed roof except that if the wastewater tank is used for heating wastewater, or treating by means of an exothermic reaction or the contents of the tank is spared, the permittee shall comply with the requirements specified in A.2.l.i.(2).

(2) [40 CFR 63.133(a)(2)]
The permittee shall comply with the requirements in A.2.l.ii through A.2.l.iv and shall operate and maintain one of the emission control techniques listed in A.2.l.i.(2)(a) through A.2.l.i.(2)(c).

(a) [40 CFR 63.133(a)(2)(i)]
A fixed roof and a closed-vent system that routes the organic HAPs vapors vented from the wastewater tank to a control device.

(b) [40 CFR 63.133(a)(2)(ii)]
A fixed roof and an internal floating roof.

(c) [40 CFR 63.133(a)(2)(iii)]
An external floating roof.

ii. [40 CFR 63.133(b)]
If the permittee elects to comply with the requirements of A.2.l.i.(2)(a), the fixed roof shall meet the requirements of A.2.l.ii.(1), the control device shall meet the requirements of A.2.l.ii.(2), and the closed-vent system shall meet the requirements of A.2.l.ii.(3).

(1) [40 CFR 63.133(b)(1)]
The fixed-roof shall meet the following requirements:

(a) [40 CFR 63.133(b)(1)(i)]
Except as provided in A.2.l.ii.(4), the fixed roof and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be maintained in accordance with the requirements specified in A.2.y.

(b) [40 CFR 63.133(b)(1)(ii)]
Each opening shall be maintained in a closed position (e.g., covered by a lid) at all times that the wastewater tank contains a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream except when it is necessary to use the opening for wastewater sampling, removal, or for equipment inspection, maintenance, or repair.

(2) [40 CFR 63.133(b)(2)]
The control device shall be designed, operated, and inspected in accordance with the requirements of A.2.r.

(3) [40 CFR 63.133(b)(3)]
Except as provided in A.2.l.ii.(4), the closed-vent system shall be inspected in accordance with the requirements of A.2.y.

(4) [40 CFR 63.133(b)(4)]
For any fixed roof tank and closed-vent system that is operated and maintained under negative pressure, the permittee is not required to comply with the requirements specified in A.2.y.

iii. [40 CFR 63.133(f)]
Each wastewater tank shall be inspected initially, and semi-annually thereafter, for improper work practices in accordance with A.2.t. For wastewater tanks, improper work practice includes, but is not limited to, leaving open any access door or other opening when such door or opening is not in use.

iv. [40 CFR 63.133(h)]
Except as provided in A.2.s, when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 45 calendar days after identification. If a failure that is detected during inspections required by A.2.l.i.(2)(a) cannot be repaired within 45 calendar days and if the vessel cannot be emptied within 45 calendar days, the permittee may utilize up to two extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical.

2m. [40 CFR 63.134]
This facility has no surface impoundments which receive, manage, or treat a Group 1 wastewater stream at the time of permit issuance.

2n. [40 CFR 63.135]
Process wastewater provisions-containers

i [40 CFR 63.135(a)]
The permittee shall comply with the requirements of A.2.n.ii through A.2.n.vi for each container that receives, manages, or treats a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream.

ii. [40 CFR 63.135(b)]
The permittee shall operate and maintain a cover on each container used to handle, transfer, or store a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream in accordance with the following requirements:

(1) [40 CFR 63.135(b)(1)]
Except as provided in A.2.n.iv.(4), if the capacity of the container is greater than 0.42 cubic meters, the cover and all openings (e.g., bungs, hatches, sampling ports, and pressure relief devices) shall be maintained in accordance with the requirements specified in A.2.y.

(2) [40 CFR 63.135(b)(2)]
If the capacity of the container is less than or equal to 0.42 cubic meters, the permittee shall comply with either (a) or (b) below:

(a) [40 CFR 63.135(b)(2)(i)]
The container must meet existing Department of Transportation specifications and testing requirements under 49 CFR Part 178; or

(b) [40 CFR 63.135(b)(2)(ii)]
Except as provided in section A.2.n.iv.(4), the cover and all openings shall be maintained without leaks as specified in A.2.y.

(3) [40 CFR 63.135(b)(3)]
The cover and all openings shall be maintained in a closed position (e.g., covered by a lid) at all times that a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream is in the container except when it is necessary to use the opening for filling, removal, inspection, sampling, or pressure relief events related to safety considerations.

iii. [40 CFR 63.135(c)]
For containers with a capacity greater than or equal to 0.42 cubic meter, a submerged fill pipe shall be used when a container is being filled by pumping with a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream.

(1) [40 CFR 63.135(c)(1)]
The submerged fill pipe outlet shall extend to no more than 6 inches or within two fill pipe diameters of the bottom of the container while the container is being filled.

(2) [40 CFR 63.135(c)(2)]
The cover shall remain in place and all openings shall be maintained in a closed position except for those openings required for the submerged fill pipe and for venting of the container to prevent physical damage or permanent deformation of the container or cover.

iv. [40 CFR 63.135(d)]
During treatment of a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, including aeration, thermal or other treatment, in a container, whenever it is necessary for the container to be open, the container shall be located within an enclosure with a closed-vent system that routes the organic HAPs vapors vented from the container to a control device.

(1) [40 CFR 63.135(d)(1)]
Except as provided in A.2.n.iv.(4), the enclosure and all openings (e.g., doors, hatches) shall be maintained in accordance with the requirements specified in A.2.y.

(2) [40 CFR 63.135(d)(2)]
The control device shall be designed, operated, and inspected in accordance with A.2.r.

(3) [40 CFR 63.135(d)(3)]
Except as provided in A.2.n.iv.(4), the closed-vent system shall be inspected in accordance with A.2.y.

(4) [40 CFR 63.135(d)(4)]
For any enclosure and closed-vent system that is operated and maintained under negative pressure, the permittee is not required to comply with the requirements specified in A.2.y.

v. [40 CFR 63.135(e)]
Each container shall be inspected initially, and semi-annually thereafter, for improper work practices and control equipment failures in accordance with A.2.t.

(1) [40 CFR 63.135(e)(1)]
For containers, improper work practice includes, but is not limited to, leaving open any access hatch or other opening when such hatch or opening is not in use.

(2) [40 CFR 63.135(e)(2)]
For containers, control equipment failure includes, but is not limited to, any time a cover or door has a gap or crack, or is broken.

vi. [40 CFR 63.135(f)]
Except as provided in A.2.s, when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 15 calendar days after identification.

2o. [40 CFR 63.136]
Process wastewater provisions-individual drain systems

i [40 CFR 63.136(a)]
For each individual drain system that receives or manages a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream, the permittee shall comply with the requirements of A.2.o.ii, through A.2.o.iv or with A.2.o.v through A.2.o.vii.

ii. [40 CFR 63.136(b)]
If the permittee elects to comply with this section, the permittee shall operate and maintain on each opening in the individual drain system a cover and if vented, route the vapors to a process or through a closed vent system to a control device. The permittee shall comply with the requirements of A.2.o.ii.(1) through A.2.o.ii.(5).

(1) [40 CFR 63.136(b)(1)]
The cover and all openings shall meet the following requirements:

(a) [40 CFR 63.136(b)(1)(i)]
Except as provided in A.2.o.ii.(4), the cover and all openings (e.g., access hatches, sampling ports) shall be maintained in accordance with the requirements specified in A.2.y.

(b) [40 CFR 63.136(b)(1)(ii)]
The cover and all openings shall be maintained in a closed position at all times that a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream is in the drain system except when it is necessary to use the opening for sampling or removal, or for equipment inspection, maintenance, or repair.

(2) [40 CFR 63.136(b)(2)]
The control device shall be designed, operated, and inspected in accordance with A.2.r.

(3) [40 CFR 63.136(b)(3)]
Except as provided in A.2.o.ii.(4), the closed-vent system shall be inspected in accordance with A.2.y.

(4) [40 CFR 63.136(b)(4)]
For any cover and closed-vent system that is operated and maintained under negative pressure, the permittee is not required to comply with the requirements specified in A.2.y.

(5) [40 CFR 63.136(b)(5)]
The individual drain system shall be designed and operated to segregate the vapors within the system from other drain systems and the atmosphere.

iii. [40 CFR 63.136(c)]
Each individual drain system shall be inspected initially, and semi- annually thereafter, for improper work practices and control equipment failures, in accordance with the inspection requirements specified in A.2.t.i.(1) through A.2.t.i.(5).

(1) [40 CFR 63.136(c)(1)]
For individual drain systems, improper work practice includes, but is not limited to, leaving open any access hatch or other opening when such hatch or opening is not in use for sampling or removal, or for equipment inspection, maintenance, or repair.

(2) [40 CFR 63.136(c)(2)]
For individual drain systems, control equipment failure includes, but is not limited to, any time a joint, lid, cover, or door has a gap or crack, or is broken.

iv. [40 CFR 63.136(d)]
Except as provided in A.2.s, when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 15 calendar days after identification.

v. [40 CFR 63.136(e)(1)]
If the permittee elects to comply with this section, the permittee shall comply with the requirements in A.2.o.v.(1) through A.2.o.v.(3):

(1) [40 CFR 63.136(e)(1)]
Each drain shall be equipped with water seal controls or a tightly fitting cap or plug. The permittee shall comply A.2.o.v.(1)(a) and A.2.o.v.(1)(b).

(a) [40 CFR 63.136(e)(1)(i)]
For each drain equipped with a water seal, the permittee shall ensure that the water seal is maintained. For example, a flow-monitoring device indicating positive flow from a main to a branch water line supplying a trap or water being continuously dripped into the trap by a hose could be used to verify flow of water to the trap. Visual observation is also an acceptable alternative.

(b) [40 CFR 63.136(e)(1)(ii)]
If a water seal is used on a drain receiving a Group 1 wastewater, the permittee shall either extend the pipe discharging the wastewater below the liquid surface in the water seal of the receiving drain, or install a flexible shield (or other enclosure which restricts wind motion across the open area between the pipe and the drain) that encloses the space between the pipe discharging the wastewater to the drain receiving the wastewater. (Water seals which are used on hubs receiving Group 2 wastewater for the purpose of eliminating cross ventilation to drains carrying Group 1 wastewater are not required to have a flexible cap or extended subsurface discharging pipe.)

(2) [40 CFR 63.136(e)(2)]
Each junction box shall be equipped with a tightly fitting solid cover (i.e., no visible gaps, cracks, or holes) which shall be kept in place at all times except during inspection and maintenance. If the junction box is vented, the permittee shall comply with the requirements in A.2.o.v.(2)(a) or A.2.o.v.(2)(b).

(a) [40 CFR 63.136(e)(2)(i)]
The junction box shall be vented to a process or through a closed vent system to a control device. The closed vent system shall be inspected in accordance with the requirements of A.2.y and the control device shall be designed, operated, and inspected in accordance with the requirements of A.3.r.

(b) [40 CFR 63.136(e)(2)(ii)]
If the junction box is filled and emptied by gravity flow (i.e., there is no pump) or is operated with no more than slight fluctuations in the liquid level, the permittee may vent the junction box to the atmosphere provided that the junction box complies with the requirements of (i) and (ii) below:

(i) [40 CFR 63.136(e)(2)(ii)(A)]
The vent pipe shall be at least 90 centimeters in length and no greater than 10.2 centimeters in nominal inside diameter.

(ii) [40 CFR 63.136(e)(2)(ii)(B)]
Water seals shall be installed and maintained at the wastewater entrance(s) to or exit from the junction box restricting ventilation in the individual drain system and between components in the individual drain system. The permittee shall demonstrate (e.g., by visual inspection or smoke test) upon request by the USEPA Region V-Administrator, or the Portsmouth Local Air Agency, that the junction box water seal is properly designed and restricts ventilation.

(3) [40 CFR 63.136(e)(3)]
Each sewer line shall not be open to the atmosphere and shall be covered or enclosed in a manner so as to have no visible gaps or cracks in joints, seals, or other emission interfaces.

vi. [40 CFR 63.136(f)]
Equipment used to comply with A.2.o.v.(1), A.2.o.v.(2), or A.2.o.v.(3) shall be inspected as follows:

(1) [40 CFR 63.136(f)(1)]
Each drain using a tightly fitting cap or plug shall be visually inspected initially, and semi-annually thereafter, to ensure caps or plugs are in place and that there are no gaps, cracks, or other holes in the cap or plug.

(2) [40 CFR 63.136(f)(2)]
Each junction box shall be visually inspected initially, and semi-annually thereafter, to ensure that there are no gaps, cracks, or other holes in the cover.

(3) [40 CFR 63.136(f)(3)]
The unburied portion of each sewer line shall be visually inspected initially, and semi-annually thereafter, for indication of cracks or gaps that could result in air emissions.

vii. [40 CFR 63.136(g)]
Except as provided in A.2.s, when a gap, hole, or crack is identified in a joint or cover, first efforts at repair shall be made no later than 5 calendar days after identification, and repair shall be completed within 15 calendar days after identification.

2p. [40 CFR 63.137]
Process wastewater provisions-oil-water separators

i [40 CFR 63.137(a)]
For each oil-water separator that receives, manages, or treats a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream, the permittee shall comply with the requirements of A.2.p.iii and A.2.p.iv and shall operate and maintain one of the following:

(1) [40 CFR 63.137(a)(1)]
A fixed roof and a closed vent system that routes the organic HAPs vapors vented from the oil-water separator to a control device. The fixed roof, closed-vent system, and control device shall meet the requirements specified in A.2.p.ii;

(2) [40 CFR 63.137(a)(2)]
A floating roof meeting the requirements in 40 CFR Part 60, Subpart QQQ 60.693-2(a)(1)(i), (a)(1)(ii), (a)(2), (a)(3), and (a)(4). For portions of the oil-water separator where it is infeasible to construct and operate a floating roof, such as over the weir mechanism, the permittee shall operate and maintain a fixed roof, closed vent system, and control device that meet the requirements specified in A.2.p.ii.

ii. [40 CFR 63.137(b)]
If the permittee elects to comply with the requirements of A.2.p.i.(1) or A.2.p.i.(2), the fixed roof shall meet the requirements of A.2.p.ii.(1), the control device shall meet the requirements of A.2.p.ii.(2), and the closed-vent system shall meet the requirements of A.2.p.ii.(3).

(1) The fixed-roof shall meet the following requirements:

(a) [40 CFR 63.137(b)(1)(i)]
Except as provided in A.2.p.ii.(4), the fixed roof and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be maintained in accordance with the requirements specified in A.2.y.

(b) [40 CFR 63.137(b)(1)(ii)]
Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that the oil-water separator contains a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream except when it is necessary to use the opening for sampling or removal, or for equipment inspection, maintenance, or repair.

(2) [40 CFR 63.137(b)(2)]
The control device shall be designed, operated, and inspected in accordance with the requirements of A.2.r.

(3) [40 CFR 63.137(b)(3)]
Except as provided in A.2.p.ii.(4), the closed-vent system shall be inspected in accordance with the requirements of A.2.y.

(4) [40 CFR 63.137(b)(4)]
For any fixed roof and closed-vent system that is operated and maintained under negative pressure, the permittee is not required to comply with the requirements of A.2.y.

iii. [40 CFR 63.137(c)]
If the permittee elects to comply with the requirements of A.2.p.i.(2), seal gaps shall be measured according to the procedures specified in 40 CFR 60.696(d)(1) and the schedule specified in A.2.p.iii.(1) and A.2.p.iii.(2).

(1) [40 CFR 63.137(c)(1)]
Measurement of primary seal gaps shall be performed within 60 calendar days after installation of the floating roof and introduction of a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream and once every 5 years thereafter.

(2) [40 CFR 63.137(c)(2)]
Measurement of secondary seal gaps shall be performed within 60 calendar days after installation of the floating roof and introduction of a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream and once every year thereafter.

iv. [40 CFR 63.137(d)]
Each oil-water separator shall be inspected initially, and semi-annually thereafter, for improper work practices in accordance with A.2.t. For oil-water separators, improper work practice includes, but is not limited to, leaving open or ungasketed any access door or other opening when such door or opening is not in use.

v. [40 CFR 63.137(e)]
Each oil-water separator shall be inspected for control equipment failures as defined in A.2.p.v.(1) according to the schedule specified in A.2.p.v.(2) and A.2.p.v.(3).

(1) [40 CFR 63.137(e)(1)]
For oil-water separators, control equipment failure includes, but is not limited to, the conditions specified in (a) through (f) below.

(a) The floating roof is not resting on either the surface of the liquid or on the leg supports.

(b) There is stored liquid on the floating roof.

(c) A rim seal is detached from the floating roof.

(d) There are holes, tears, or other open spaces in the rim seal or seal fabric of the floating roof.

(e) There are gaps between the primary seal and the separator wall that exceed 67 square centimeters per meter of separator wall perimeter or the width of any portion of any gap between the primary seal and the separator wall exceeds 3.8 centimeters.

(f) There are gaps between the secondary seal and the separator wall that exceed 6.7 square centimeters per meter of separator wall perimeter or the width of any portion of any gap between the secondary seal and the separator wall exceeds 1.3 centimeters.

(g) A gasket, joint, lid, cover, or door has a gap or crack, or is broken.

(2) [40 CFR 63.137(e)(2)]
The permittee shall inspect for the control equipment failures in sections A.2.p.v.(1) according to the schedule specified in A.2.p.iii.

(3) [40 CFR 63.137(e)(3)]
The permittee shall inspect for control equipment failures in A.2.p.v.(1)(g) initially, and semi-annually thereafter.

vi. [40 CFR 63.137(f)]
Except as provided in A.2.s, when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 45 calendar days after identification.

2q. [40 CFR 63.138]
Process wastewater provisions-performance standards for treatment processes managing Group 1 wastewater streams and/or residuals removed from Group 1 wastewater streams

i [40 CFR 63.138(a)]
This section specifies the performance standards for treating Group 1 wastewater streams. The permittee shall comply with the requirements as specified in A.2.q.i.(1) to A.2.q.i.(4). Once a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream has been treated in accordance with A.2, it is no longer subject to the requirements of A.2.

(1) For all Group 1 wastewater streams, the permittee shall comply with A.2.q.ii.

(2) Biological treatment processes in compliance with this section may be either open or closed biological treatment processes. An open biological treatment process in compliance with this section need not be covered and vented to a control device as required in A.2.l through A.2.p. An open biological treatment process in compliance with this section and using A.2.v.ii to demonstrate compliance is not subject to the requirements of A.2.l through A.2.p. Waste management units upstream of an open biological treatment process shall meet the requirements of A.2.l through A.2.p, as applicable.

(3) For each open biological treatment process, the permittee shall conduct a performance test as specified in A.2.v.

(4) When residuals result from treating Group 1 wastewater streams, the permittee shall comply with the requirements for residuals specified in A.2.q.iv.

ii. [40 CFR 63.138(f)]
The permittee shall achieve the required mass removal (RMR) of Table 8 compounds at a new source for a wastewater stream that is Group 1 for Table 8 and/or of Table 9 compounds at a new or existing source for a wastewater stream that is Group 1 for Table 9 compounds. For open biological treatment processes compliance shall be determined using the procedures specified in A.2.v.ii.

iii. [40 CFR 63.138(j)]
The permittee shall comply with A.2.v.ii for the open biological treatment unit is used to comply with A.2.q.ii.

(1) A design evaluation and supporting documentation that address the operating characteristics of the treatment process and that is based on operation at a representative wastewater stream flow rate and a concentration under which it would be most difficult to demonstrate compliance. The mass flow rate of Table 8 or Table 9 compounds exiting the treatment process shall be the sum of the mass

flow rate of Table 8 or Table 9 compounds in the wastewater stream exiting the biological treatment process and the mass flow rate of the vented gas stream exiting the control device. The mass flow rate entering the treatment process minus the mass flow rate exiting the process determines the actual mass removal.

(2) Performance tests conducted using test methods and procedures that meet the applicable requirements specified in A.2.v.

iv. [40 CFR 63.138(k)]
For each residual removed from a Group 1 wastewater stream, the permittee shall control for air emissions by complying with A.2.l through A.2.p and by complying with one of the provisions in (1) through (3) below.

(1) Recycle the residual to a production process or sell the residual for the purpose of recycling. Once a residual is returned to a production process, the residual is no longer subject to this section.

(2) Return the residual to the treatment process.

(3) Treat the residual to destroy the total combined mass flow rate of Table 8 and/or Table 9 compounds by 99 percent or more.

2r. [40 CFR 63.139]
Process wastewater provisions-control devices

i [40 CFR 63.139(a)]
For each control device or combination of control devices used to comply with the provisions in A.2.l through A.2.q, the permittee shall operate and maintain the control device or combination of control devices in accordance with the requirements of A.2.r.ii through A.2.r.vi.

ii. [40 CFR 63.139(b)]
Whenever organic HAPs emissions are vented to a control device which is used to comply with the provisions of A.2, such control device shall be operating.

iii. [40 CFR 63.139(c)(1)]
An enclosed combustion device (including but not limited to a vapor incinerator, boiler, or process heater) shall meet the conditions in A.2.r.iii.(1), A.2.r.iii.(2), or A.2.r.iii.(3), alone or in combination with other control devices. If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater.

(1) [40 CFR 63.139(c)(1)(i)]
Reduce the total organic compound emissions, less methane and ethane, or total organic HAPs emissions vented to the control device by 95 percent by weight or greater;

(2) [40 CFR 63.139(c)(1)(ii)]
Achieve an outlet total organic compound concentration, less methane and ethane, or total organic HAPs concentration of 20 ppmv on a dry basis corrected to 3 percent oxygen. The permittee shall use either Method 18 of 40 CFR Part 60, Appendix A, or any other method or data that has been validated according to the applicable procedures in Method 301 of 40 CFR Part 63, Appendix A; or

(3) [40 CFR 63.139(c)(1)(iii)]
Provide a minimum residence time of 0.5 seconds at a minimum temperature of 760 C.

iv. [40 CFR 63.139(d)]
The permittee shall demonstrate that each control device or combination of control devices achieves the appropriate conditions specified in A.2.r.iii by using one or more of the methods specified in A.2.r.iv.(1) and A.2.r.iv.(2).

(1) [40 CFR 63.139(d)(1)]
Performance tests conducted using the test methods and procedures specified in A.2.v.iv for control devices other than flares; or

(2) [40 CFR 63.139(d)(2), & (d)(2)(iii)]
A design evaluation that addresses the vent stream characteristics and control device operating parameters. For a boiler or process heater, the design evaluation shall consider the vent stream composition, constituent concentrations, and flow rate; shall establish the design minimum and average flame zone temperatures and combustion zone residence time; and shall describe the method and location where the vent stream is introduced into the flame zone.

v. [40 CFR 63.139(e)]
The permittee of a control device that is used to comply with the provisions of this section shall monitor the control device in accordance with A.2.t.

vi. [40 CFR 63.139(f)]
Except as provided in A.2.s, if gaps, cracks, tears, or holes are observed in ductwork, piping, or connections to covers and control devices during an inspection, a first effort to repair shall be made as soon as practical but no later than 5 calendar days after identification. Repair shall be completed no later than 15 calendar days after identification or discovery of the defect.

2s. [40 CFR 63.140]
Process wastewater provisions-delay of repair

i [40 CFR 63.140(a)]
Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified, is allowed if the repair is technically infeasible without a shutdown or if the permittee determines that emissions of purged material from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of this equipment shall occur by the end of the next shutdown.

ii. [40 CFR 63.140(b)]
Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified, is allowed if the equipment is emptied or is no longer used to treat or manage Group 1 wastewater streams or residuals removed from Group 1 wastewater streams.

iii. [40 CFR 63.140(c)]
Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified is also allowed if additional time is necessary due to the unavailability of parts beyond the control of the permittee. Repair shall be completed as soon as practical. The permittee who uses this provision shall comply with the requirements of A.2.x.ii.(6) to document the reasons that the delay of repair was necessary.

2t. [40 CFR 63.143]
Process wastewater provisions-inspections and monitoring of operations

i [40 CFR 63.143(a) and Table 11]
For each wastewater tank, surface impoundment, container, individual drain system, and oil-water separator that receives, manages, or treats a Group 1 wastewater stream, a residual removed from a Group 1 wastewater stream, a recycled Group 1 wastewater stream, or a recycled residual removed from a Group 1 wastewater stream, the permittee shall comply with the inspection requirements specified in (1) through (4) below:

(1) Tanks: The permittee shall perform visual inspections of all wastewater tanks for leaks of the fixed roof or any opening, for control equipment failure, and for improper work practices on a semi-annual basis. [Table 11]

(2) Containers:

(a) To comply with A.2.n.ii.(1) and A.2.n.ii.(2)(b), the permittee shall visually inspect the cover and all openings for leaks initially and on a semi-annual basis thereafter.

(b) To comply with A.2.n.iv.(1), the permittee shall visually inspect the enclosure and all openings for leaks initially and on a semi-annual basis thereafter.

(c) To comply with A.2.n.v, the permittee shall visually inspect the container for control equipment failures and improper work practices initially and on a semi-annual basis thereafter.

(3) Individual Drain Systems:

(a) To comply with A.2.o.ii.(1), the permittee shall visually inspect the cover and all openings to ensure there are no gaps, cracks, or holes initially and on a semi-annual basis thereafter.

(b) To comply with A.2.o.iii, the permittee shall visually inspect the individual drain system for control equipment failures and improper work practices initially and on a semi-annual basis thereafter.

(c) To comply with A.2.o.v.(1), the permittee shall perform a visual inspection to verify that sufficient water is present to properly maintain integrity of water seals initially and on a semi-annual basis thereafter.

(d) To comply with A.2.o.v.(2) and A.2.o.vi.(1), the permittee shall visually inspect all drains using tightly-fitted caps or plugs to ensure caps and plugs are in place and properly installed initially and on a semi-annual basis thereafter.

(e) To comply with A.2.o.vi.(2), the permittee shall inspect all junction boxes to ensure covers are in place and have no visible gaps, cracks, or holes initially and on a semi-annual basis thereafter. The inspection may be visual, by smoke test or by other means specified.

(f) To comply with A.2.o.vi.(3), the permittee shall visually inspect the unburied portions of all sewer lines for cracks and gaps initially and on a semi-annual basis thereafter.

(4) Oil-water separators:

(a) To comply with A.2.p.ii.(1), the permittee shall visually inspect fixed roofs and all openings for leaks initially and on a semi-annual basis thereafter.

(b) To comply with A.2.p.iii, the permittee shall measure the floating roof primary seal gaps in accordance with 40 CFR 60.696(d)(1) initially and once every 5 years.

(c) To comply with A.2.p.iii, the permittee shall measure the floating roof secondary seal gaps in accordance with 40 CFR 60.696(d)(1) initially and on an annual basis thereafter.

(d) To comply with A.2.p.iv, the permittee shall visually inspect oil-water separators for control equipment failures and improper work practices initially and on a semi-annual basis thereafter.

ii. [40 CFR 63.143(c)]
For the biological treatment unit used to comply with A.2.q, the permittee shall request approval to monitor appropriate parameters that demonstrate proper operation of the biological treatment unit. The request shall be submitted according to the procedures specified in A.2.za.v, and shall include a description of planned reporting and record keeping procedures. The permittee shall include as part of the submittal the basis for the selected monitoring frequencies and the methods that will be used.

iii. [40 CFR 63.143(e)]
For each control device used to comply with the requirements of A.2.l through A.2.r, the permittee shall comply with the requirements in A.2.r.iv, and with the requirements specified in sections (1) and (2) below.

(1) [40 CFR Part 63, Subpart G, Table 13]
For all control devices, the permittee shall comply with either (a) or (b).

(a) The permittee shall install flow indicators at all bypass lines in order to monitor the presence of flow diverted from the control device to the atmosphere. The flow indicator shall be equipped with continuous recorder. The permittee shall maintain hourly records of whether the flow indicator was operating and whether a diversion was detected at any time during each hour.

(b) The permittee shall equip valves on bypass lines with car-seal or lock-and-key configuration seals. The permittee shall perform monthly inspections of the sealed valves. The permittee shall maintain monthly records of the results of the monthly inspections.

(2) [40 CFR 63.143(e)(4)]
For a boiler or process heater less than 44 megawatts and vent stream is not mixed with the primary fuel, the permittee shall install a temperature monitoring device in the firebox in order to monitor the combustion temperature. The temperature

monitoring device shall be equipped with a continuous recorder. The permittee shall maintain continuous records of the firebox temperature.

iv. [40 CFR 63.143(f)]
For each parameter monitored in accordance with A.2.t.ii or A.2.t.iii, the permittee shall establish a range that indicates proper operation of the treatment process or control device. In order to establish the range, the permittee shall comply with the requirements specified in A.2.w.ii.(5)(a) and A.2.w.ii.(6)(b).

v. [40 CFR 63.143(g)]
Monitoring equipment shall be installed, calibrated, and maintained according to the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

vi. [40 CFR 63.144(a)]
The permittee shall comply with A.2.u.i.(1) or A.2.u.i.(2) for each wastewater stream to determine which wastewater streams require control for Table 8 and/or Table 9 compounds. The permittee may use a combination of the approaches in A.2.u.i.(1) and A.2.u.i.(2) for different wastewater streams generated at the source.

(1) [40 CFR 63.144(a)(1)]
Determine whether a wastewater stream is a Group 1 or Group 2 wastewater stream in accordance with A.2.u.ii and A.2.u.iii.

(2) [40 CFR 63.144(a)(2)]
The permittee may designate as a Group 1 wastewater stream a single wastewater stream or a mixture of wastewater streams. The permittee is not required to determine the concentration or flow rate for each designated Group 1 wastewater stream for the purposes of A.2.u.

vii. [40 CFR 63.144(b)]
To comply with the requirements of A.2.u.i.(1), the permittee shall determine the annual average concentration for Table 8 and/or compounds listed in Table 9 of A.2.ac according to A.2.u.ii.(1) for existing sources or A.2.u.ii.(2) for new sources. The annual average concentration shall be a flow weighted average representative of actual or anticipated operation of the CMPU generating the wastewater over a designated 12 month period. For flexible operation units, the permittee shall consider the anticipated production over the designated 12 month period and include all wastewater streams generated by the process equipment during this period. The permittee is not required to determine the concentration of Table 8 or Table 9 compounds that are not reasonably expected to be in the process.

(1) [40 CFR 63.144(b)(1)]
The permittee of an existing source who elects to comply with the requirements of A.2.u.i.(1) shall determine the flow weighted total annual average concentration for Table 9 compounds. For the purposes of A.2.u, the term concentration, whether concentration is used alone or with other terms, may be adjusted by multiplying by the compound-specific fraction measured (Fm) factors listed in Table 34 of A.2.zc unless determined by the methods in A.2.u.ii.(4)(a)(i) and/or A.2.u.ii.(4)(a)(ii). When concentration is determined by Method 305 as specified in A.2.u.ii.(4)(a)(ii), concentration may be adjusted by dividing by the compound-specific Fm factors listed in Table 34 of A.2.zc. When concentration is determined by Method 25D as specified in A.2.u.ii.(4)(a)(i), concentration may not be adjusted by the compound-specific Fm factors listed in Table 34 of A.2.zc. Compound-specific Fm factors may be used only when concentrations of individual compounds are determined or when only one compound is in the wastewater stream. Flow weighted total annual average concentration for Table 9 compounds means the total mass of Table 9 compounds occurring in the wastewater stream during the designated 12-month period divided by the total mass of the wastewater stream during the same designated 12-month period. The total annual average concentration shall be determined for each wastewater stream either at the point of determination, or downstream of the point of determination with adjustment for concentration changes made according to A.2.u.ii.(5). The procedures specified in A.2.u.ii.(3) and A.2.u.ii.(4) are considered acceptable procedures for determining the annual average concentration. They may be used in combination, and no one procedure shall take precedence over another.

(2) [40 CFR 63.144(b)(2)]
The permittee of a new source who elects to comply with the requirements of A.2.u.i.(1) shall determine both the flow weighted total annual average concentration for Table 9 compounds and the flow weighted annual average concentration for each Table 8 compound. For the purposes of A.2.u, the term concentration, whether concentration is used alone or with other terms, may be adjusted by multiplying by the compound-specific Fm factors listed in Table 34 of A.2.zc unless determined by the methods in A.2.u.ii.(4)(a)(i) and/or A.2.u.ii.(4)(a)(ii). When concentration is determined by Method 305 as specified in A.2.u.ii.(4)(a)(ii), concentration may be adjusted by dividing by the compound-specific Fm factors listed in Table 34 of A.2.zc. When concentration is determined by Method 25D as specified in A.2.u.(4)(a)(i), concentration may not be adjusted by the compound-specific Fm factors listed in Table 34 of A.2.zc. Compound-specific fraction measured factors are compound specific and shall be used only when concentration of individual compounds are determined or when only one compound is in the wastewater stream. The flow weighted annual average concentration of each Table 8 compound means the mass of each Table 8 compound occurring in the wastewater stream during the designated 12-month period divided by the total mass of the wastewater stream during the same

designated 12-month period. Flow weighted total annual average concentration for Table 9 compounds means the total mass of Table 9 compounds occurring in the wastewater stream during the designated 12-month period divided by the total mass of the wastewater stream during the same designated 12-month period. The annual average concentration shall be determined for each wastewater stream either at the point of determination, or downstream of the point of determination with adjustment for concentration changes made according to A.2.u.ii.(5).

Procedures specified in A.2.u.ii.(3) and A.2.u.ii.(4) are considered acceptable procedures for determining the annual average concentration. They may be used in combination, and no one procedure shall take precedence over another.

(3) [40 CFR 63.144(b)(3)]
Where knowledge of the wastewater is used to determine the annual average concentration, the permittee shall provide sufficient information to document the annual average concentration for wastewater streams determined to be Group 2 wastewater streams. Documentation to determine the annual average concentration is not required for Group 1 streams. Examples of acceptable documentation include material balances, records of chemical purchases, process stoichiometry, or previous test results. If test data are used, the permittee shall provide documentation describing the testing protocol and the means by which any losses of volatile compounds during sampling, and the bias and accuracy of the analytical method, were accounted for in the determination.

(4) [40 CFR 63.144(b)(5)]
Test data from sampling at the point of determination or at a location downstream of the point of determination. Where the permittee elects to comply with A.2.u.i.(1) by measuring the concentration for the relevant Table 8 or Table 9 compounds, the permittee shall comply with the requirements of A.2.u.ii.(4). For each wastewater stream, measurements shall be made either at the point of determination, or downstream of the point of determination with adjustment for concentration changes made according to A.2.u.ii.(5). A minimum of three samples from each wastewater stream shall be taken. Samples may be grab samples or composite samples.

(a) [40 CFR 63.144(b)(5)(i)]
The permittee shall use any of the methods specified in A.2.u.ii.(4)(a)(i) through A.2.u.ii.(4)(a)(vi).

(i) Use procedures specified in Method 25D of 40 CFR Part 60, Appendix A.

(ii) Use procedures specified in Method 305 of 40 CFR Part 63, Appendix A.

(iii) Use procedures specified in Methods 624 and 625 of 40 CFR Part 136, Appendix A and comply with the sampling protocol requirements specified in A.2.u.ii.(4)(a). If these methods are used to analyze one or more compounds that are not on the method's published list of approved compounds, the Alternative Test Procedure specified in 40 CFR 136.4 and 136.5 shall be followed. For Method 625, make corrections to the compounds for which the analysis is being conducted based on the accuracy as recovery factors in Table 7 of the method.

(iv) Use procedures specified in Method 1624 and Method 1625 of 40 CFR Part 136, Appendix A and comply with the requirements specified in A.2.u.ii.(4)(b). If these methods are used to analyze one or more compounds that are not on the method's published list of approved compounds, the Alternative Test Procedure specified in 40 CFR 136.4 and 136.5 shall be followed.

(v) Use procedures specified in other EPA methods and comply with the requirements specified in A.2.u.ii.(4)(b) and either A.2.u.ii.(4)(c)(i) or A.2.u.ii.(4)(c)(ii).

(vi) Use procedures specified in methods other than EPA methods and comply with the requirements specified in A.2.u.ii.(4)(b) and A.2.u.ii.(4)(c)(i).

(b) [40 CFR 63.144(b)(5)(ii)]
The permittee who is expressly referred to this section by provisions of A.2 shall prepare a sampling plan. Wastewater samples shall be collected using sampling procedures which minimize loss of organic compounds during sample collection and analysis and maintain sample integrity. The sample plan shall include procedures for determining recovery efficiency of the relevant HAPs listed in Table 8 or Table 9 of A.2.zc. An example of an acceptable sampling plan would be one that incorporates similar sampling and sample handling requirements to those of Method 25D of 40 CFR Part 60, Appendix A. The sampling plan shall be maintained at the facility.

(c) [40 CFR 63.144(b)(5)(iii)]
The permittee shall validate EPA methods other than Methods 25D, 305, 624, 625, 1624, and 1625 using the procedures specified in A.2.u.ii.(4)(c)(i) or A.2.u.ii.(4)(c)(ii). The permittee shall validate other methods as specified in A.2.u.ii.(4)(c)(i).

(i) Validation of EPA methods and other methods. The method used to measure organic HAPs concentrations in the wastewater shall be validated according to section 5.1 or 5.3, and the corresponding calculations in section 6.1 or 6.3, of Method 301 40 CFR Part 63, Appendix A. The data are acceptable if they meet the criteria specified in section 6.1.5 or 6.3.3 of Method 301 of 40 CFR Part 63, Appendix A. If correction is required under section 6.3.3 of Method 301 of 40 CFR Part 63, Appendix A, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 of 40 CFR Part 63, Appendix A are not required. The concentrations of the individual organic HAPs measured in the water may be corrected to their concentrations had they been measured by Method 305 of 40 CFR Part 63, Appendix A by multiplying each concentration by the compound-specific fraction measured (Fm) factor listed in Table 34 of A.2.zc.

(ii) Validation for EPA methods. Follow the procedures as specified in "Alternative Validation Procedure for EPA Waste Methods" 40 CFR Part 63, Appendix D.

(d) [40 CFR 63.144(b)(5)(iv)]
The average concentration for each individually speciated Table 8 compound shall be calculated by adding the individual values determined for the specific compound in each sample and dividing by the number of samples. The total average concentration of Table 9 compounds shall be calculated by first summing the concentration of the individual compounds to obtain a total HAPs concentration for the sample; add the sample totals and then divide by the number of samples in the run to obtain the sample average for the run. If the method used does not speciate the compounds, the sample results should be added and this total divided by the number of samples in the run to obtain the sample average for the run.

(5) [40 CFR 63.144(b)(6)]
Adjustment for concentrations determined downstream of the point of determination. The permittee shall make corrections to the annual average concentration or total annual average concentration when the concentration is determined downstream of the point of determination at a location where: two or more wastewater streams have been mixed; one or more wastewater streams have been treated; or, losses to the atmosphere have occurred. The permittee shall make the adjustments either to the individual data points or to the final annual average concentration.

iii. [40 CFR 63.144(c)]

Procedures to determine flow rate, when evaluating Group status under A.2.u.i.(1). The permittee who elects to comply with A.2.u.i.(1) shall determine the annual average flow rate of the wastewater stream either at the point of determination for each wastewater stream, or downstream of the point of determination with adjustment for flow rate changes made according to A.2.u.iii.(4). These procedures may be used in combination for different wastewater streams at the source. The annual average flow rate for the wastewater stream shall be representative of actual or anticipated operation of the CMPU generating the wastewater over a designated 12-month period. The permittee shall consider the total annual wastewater volume generated by the CMPU. If the CMPU is a flexible operation unit, the permittee shall consider all anticipated production in the process equipment over the designated 12-month period. The procedures specified in A.2.u.iii.(1), A.2.u.iii.(2), and A.2.u.iii.(3) are considered acceptable procedures for determining the flow rate. They may be used in combination, and no one procedure shall take precedence over another.

(1) [40 CFR 63.144(c)(1)]

The permittee may use knowledge of the wastewater stream and/or the process to determine the annual average flow rate. The permittee shall use the maximum expected annual average production capacity of the process unit, knowledge of the process, and/or mass balance information to either: Estimate directly the annual average wastewater flow rate; or estimate the total annual wastewater volume and then divide total volume by 525,600 minutes in a year. Where knowledge is used to determine the annual average flow rate, the permittee shall provide sufficient information to document the flow rate for wastewater streams determined to be Group 2 wastewater streams. Documentation to determine the annual average flow rate is not required for Group 1 streams.

(2) [40 CFR 63.144(c)(2)]

The permittee may use historical records to determine the annual average flow rate. Derive the highest annual average flow rate of wastewater from historical records representing the most recent 5 years of operation or, if the process unit has been in service for less than 5 years but at least 1 year, from historical records representing the total operating life of the process unit. Where historical records are used to determine the annual average flow rate, the permittee shall provide sufficient information to document the flow rate for wastewater streams determined to be Group 2 wastewater streams. Documentation to determine the annual average flow rate is not required for Group 1 streams.

(3) [40 CFR 63.144(c)(3)]

Where the permittee elects to comply with A.2.u.i.(1) by measuring the flow rate, the permittee shall comply with the requirements of this section. Measurements shall be made at the point of determination, or at a location downstream of the point of determination with adjustments for flow rate changes made according to

A.2.u.iii.(4). Where measurement data are used to determine the annual average flow rate, the permittee shall provide sufficient information to document the flow rate for wastewater streams determined to be Group 2 wastewater streams. Documentation to determine the annual average flow rate is not required for Group 1 streams.

(4) [40 CFR 63.144(c)(4)]
The permittee shall make corrections to the annual average flow rate of a wastewater stream when it is determined downstream of the point of determination at a location where two or more wastewater streams have been mixed or one or more wastewater streams have been treated. The permittee shall make corrections for such changes in the annual average flow rate.

2v. [40 CFR 63.145]
Process wastewater provisions-test methods and procedures to determine compliance

i [40 CFR 63.145(a)]
This section specifies the procedures for performance tests that are conducted to demonstrate compliance of a treatment process or a control device with the control requirements specified in A.2.q. The permittee shall comply with the requirements of A.2.v.i.(1) or A.2.v.i.(2) when conducting a design evaluation. The permittee shall comply with the applicable requirements of A.2.v.i through A.2.v.iv when conducting a performance test.

(1) [40 CFR 63.145(a)(1)]
For the open biological treatment process, the permittee shall conduct a performance test as specified in A.2.v.

(2) [40 CFR 63.145(a)(2)]
The permittee shall conduct either a design evaluation as specified in A.2.r.iv, or a performance test as specified in A.2.v.iv for control devices other than flares.

(3) [40 CFR 63.145(a)(3)]
Compliance shall be demonstrated for representative operating conditions. Operations during periods of startup, shutdown, or malfunction and periods of non-operation shall not constitute representative conditions. The permittee shall record the process information that is necessary to document operating conditions during the test.

(4) [40 CFR 63.145(a)(4)]
Performance tests shall be conducted when the treatment process or control device is operating at a representative inlet flow rate and concentration. If the treatment process or control device will be operating at several different sets of representative operating conditions, the permittee shall comply with A.2.v.i.(4)(a)

and A.2.v.i.(4)(b). The permittee shall record information that is necessary to document treatment process or control device operating conditions during the test.

(a) [40 CFR 63.145(a)(4)(i)]
If the treatment process or control device will be operated at several different sets of representative operating conditions, performance testing over the entire range is not required. In such cases, the performance test results shall be supplemented with modeling and/or engineering assessments to demonstrate performance over the operating range.

(b) [40 CFR 63.145(a)(4)(ii)]
If concentration and/or flow rate to the treatment process or control device are not relatively constant (i.e., comparison of inlet and outlet data will not be representative of performance), the permittee shall consider residence time, when determining concentration and flow rate.

(5) [40 CFR 63.145(a)(5)]
All testing equipment shall be prepared and installed as specified in the applicable test methods.

(6) [40 CFR 63.145(a)(6)]
Compounds that meet the requirements specified in A.2.v.i.(6)(a), A.2.v.i.(6)(b), or A.2.v.i.(6)(c) are not required to be included in the performance test. Concentration measurements based on Method 305 shall be adjusted by dividing each concentration by the compound-specific Fm factor listed in Table 34 of A.2.zc. Concentration measurements based on methods other than Method 305 shall not be adjusted by the compound-specific Fm factor listed in Table 34 of A.2.zc.

(a) [40 CFR 63.145(a)(6)(i)]
Compounds not used or produced by the CMPU; or

(b) [40 CFR 63.145(a)(6)(ii)]
Compounds with concentrations at the point of determination that are below 1 part per million by weight; or

(c) [40 CFR 63.145(a)(6)(iii)]
Compounds with concentrations at the point of determination that are below the lower detection limit where the lower detection limit is greater than 1 part per million by weight. The method shall be an analytical method for wastewater which has that compound as a target analyte.

(7) [40 CFR 63.145(a)(8)]
When using a biological treatment process to comply with A.2.q, the permittee may elect to calculate the AMR using a subset of Table 8 and/or Table 9 compounds determined at the point of determination or downstream of the point of determination with adjustment for concentration and flow rate changes made according to A.2.u.ii.(5) and A.2.u.iii.(4), respectively. All Table 8 and/or Table 9 compounds measured to determine the RMR, except as provided by A.2.v.i.(6), shall be included in the RMR calculation.

(8) [40 CFR 63.145(a)(9)(i)]
For purposes of demonstrating compliance with A.2.v.ii. When wastewater is conveyed exclusively by hard-piping from the point of determination to a treatment process that is either the only treatment process or the first in a series of treatment processes (i.e., no treatment processes or other waste management units are used upstream of this treatment process to store, handle, or convey the wastewater), the inlet to the treatment process shall be at any location from the point of determination to where the wastewater stream enters the treatment process. When samples are taken upstream of the treatment process and before wastewater streams have converged, the permittee shall ensure that the mass flow rate of all Group 1 wastewater streams is accounted for when using A.2.q.ii to comply, except as provided in A.2.v.i.(6).

ii. [40 CFR 63.145(f)]
This section applies to the use of performance tests that are conducted for open aerobic biological treatment processes to demonstrate compliance with the mass removal (RMR) provisions for Table 8 and/or Table 9 compounds. These compliance options are specified in A.2.q.ii. The permittee shall comply with the requirements specified in A.2.v.ii.(1) through A.2.v.ii.(6).

(1) [40 CFR 63.145(f)(1)]
The concentration of Table 8 and/or Table 9 compounds in the wastewater shall be determined as provided in this section. Concentration measurements to determine RMR shall be taken at the point of determination or downstream of the point of determination with adjustment for concentration change made according to A.2.u.ii.(5). Concentration measurements to determine AMR shall be taken at the inlet and outlet to the treatment process and as provided in A.2.v.i.(7) for a series of treatment processes. Wastewater samples shall be collected using sampling procedures which minimize loss of organic compounds during sample collection and analysis and maintain sample integrity per A.2.u.ii.(4)(b). The method shall be an analytical method for wastewater which has that compound as a target analyte. Samples may be grab samples or composite samples. Samples shall be taken at approximately equally spaced time intervals over a 1-hour period. Each 1-hour period constitutes a run, and the performance test shall consist of a minimum of 3 runs. Concentration measurements based on Method 305 shall be

adjusted by dividing each concentration by the compound-specific Fm factor listed in Table 34 of A.2.zc. Concentration measurements based on methods other than Method 305 shall not adjust by the compound-specific Fm factor listed in Table 34 of A.2.zc.

(2) [40 CFR 63.145(f)(2)]
Flow rate measurements to determine RMR shall be taken at the point of determination or downstream of the point of determination with adjustment for flow rate change made according to A.2.u.iii.(2). Flow rate measurements to determine AMR shall be taken at the inlet and outlet to the treatment process and as provided in A.2.v.i.(7) for a series of treatment processes. Flow rate shall be determined using inlet and outlet flow measurement devices. Where the outlet flow is not greater than the inlet flow, a flow measurement device shall be used, and may be used at either the inlet or outlet. Flow rate measurements shall be taken at the same time as the concentration measurements.

(3) The RMR for open biological treatment processes of Table 8 and/or Table 9 compounds for each Group 1 wastewater stream shall be calculated using Equation WW11 listed in 40 CFR 63.145(f)(3). Where:
RMR=Required mass removal for treatment process or series of treatment processes, kilograms per hour.
d=Density of the Group 1 wastewater stream, kilograms per cubic meter.
Q=Volumetric flow rate of wastewater stream at the point of determination, liters per hour.
i=Identifier for a compound.
n=Number of Table 8 or Table 9 compounds in stream.
Ci=Concentration of Table 8 or Table 9 compounds at the point of determination, parts per million by weight.
Fri=Fraction removal value of a Table 8 or Table 9 compound. Fr values are listed in Table 9.
10^9=Conversion factor, mg/kg * l/m3.

(4) [40 CFR 63.145(f)(4)]
The RMR is calculated by adding together the required mass removal for each Group 1 wastewater stream to be combined for treatment.

(5) [40 CFR 63.145(f)(5)]
The actual mass removal (AMR) shall be calculated using Equation WW12 as specified in A.2.v.ii.(5)(a) when the performance test is performed across the open aerobic biological treatment process only. If compliance is being demonstrated in accordance with A.2.v.i.(7)(a), the AMR for the series shall be calculated using Equation WW13 in A.2.v.ii.(5)(b). (This equation is for situations where treatment is performed in a series of treatment processes connected by hard-piping.) If compliance is being demonstrated in accordance with

A.2.v.i.(7)(b), the AMR for the biological treatment process shall be calculated using Equation WW12 in A.2.v.ii.(5)(a). The AMR for the biological treatment process used in a series of treatment processes calculated using Equation WW12 shall be added to the AMR determined for each of the other individual treatment processes in the series of treatment processes.

(a) Calculate AMR for the open or closed aerobic biological treatment process using Equation WW12 listed in 40 CFR 63.145(f)(5)(i). Where:
AMR=Actual mass removal of Table 8 or Table 9 compounds achieved by open or closed biological treatment process, kilograms per hour.
QMWa=Mass flow rate of Table 8 or Table 9 compounds in wastewater entering the treatment process, kilograms per hour.
Fbio=Site-specific fraction of Table 8 or Table 9 compounds biodegraded. Fbio shall be determined as specified in A.2.v.iii and Appendix C of 40 CFR Part 63.

(b) Calculate AMR across a series of treatment units where the last treatment unit is an open or closed aerobic biological treatment process using Equation WW13 listed in 40 CFR 63.145(f)(5)(ii). Where:
AMR=Actual mass removal of Table 8 or Table 9 compounds achieved by a series of treatment processes, kilograms per hour.
QMWa=Mass flow rate of Table 8 or Table 9 compounds in wastewater entering the first treatment process in a series of treatment processes, kilograms per hour.
QMWb=Mass flow rate of Table 8 or Table 9 compounds in wastewater exiting the last treatment process in a series of treatment processes prior to the biological treatment process, kilograms per hour.
Fbio=Site-specific fraction of Table 8 or Table 9 compounds biodegraded. Fbio shall be determined as specified in A.2.v.iii and Appendix C of 40 CFR Part 63.

(6) [40 CFR 63.145(f)(6)]
Compare the RMR calculated in Equation WW11 to the AMR calculated in either Equation WW12 or WW13, as applicable. Compliance is demonstrated if the AMR is greater than or equal to the RMR.

iii. [40 CFR 63.145(h)]
Site-specific fraction biodegraded (Fbio). The Table 9 compounds are divided into two sets for the purpose of determining whether Fbio must be determined, and if Fbio must be determined, which procedures may be used to determine compound-specific kinetic parameters. These sets are designated as lists 1 and 2 in Table 36 of A.2.zc.

(1) [40 CFR 63.145(h)(2)(i)]
For wastewater streams that include one or more compounds on list 2 of Table 36 of A.2.zc, the permittee shall determine fbio for the list 2 compounds using any of the procedures specified in 40 CFR Part 63, Appendix C. (The symbol ``fbio'' represents the site specific fraction of an individual Table 8 or Table 9 compound that is biodegraded.) The permittee shall calculate fbio for the list 1 compounds using the defaults for first order biodegradation rate constants (K1) in Table 37 of A.2.zc and follow the procedure explained in form III of 40 CFR Part 63, Appendix C, or any of the procedures specified in 40 CFR Part 63, Appendix C.

(2) [40 CFR 63.145(h)(2)(iii)]
This section applies to performance tests that are conducted to demonstrate compliance of a control device with the efficiency limits specified in A.2.r.iii. If complying with the 95-percent reduction efficiency requirement, comply with the requirements specified in A.2.v.iv.(1) through A.2.v.iv.(9). If complying with the 20 ppm by volume requirement, comply with the requirements specified in sections A.2.v.iv.(1) through A.2.v.iv.(6) and A.2.v.iv.(9). The 20 ppm by volume limit or 95 percent reduction efficiency requirement shall be measured as either total organic HAPs or as TOC minus methane and ethane.

iv. Performance tests for control devices other than flares

(1) [40 CFR 63.145(i)(1)]
Sampling sites shall be selected using Method 1 or 1A of 40 CFR Part 60, Appendix A, as appropriate. For determination of compliance with the 95 percent reduction requirement, sampling sites shall be located at the inlet and the outlet of the control device. For determination of compliance with the 20 ppmv limit, the sampling site shall be located at the outlet of the control device.

(2) [40 CFR 63.145(i)(2)]
The concentration of total organic HAPs or TOC in a gas stream entering or exiting the control device shall be determined as provided in this section. Samples may be grab samples or composite samples (i.e., integrated samples). Samples shall be taken at approximately equally spaced time intervals over a 1-hour period. Each 1-hour period constitutes a run, and the performance test shall consist of a minimum of 3 runs. Concentration measurements shall be determined using Method 18 of 40 CFR Part 60, Appendix A. Alternatively, any other test method validated according to the procedures in Method 301 of 40 CFR Part 63, Appendix A may be used.

(3) [40 CFR 63.145(i)(3)]
The volumetric flow rate of the gas stream entering or exiting the control device shall be determined using Method 2, 2A, 2C, or 2D of 40 CFR Part 60, Appendix

A, as appropriate. Volumetric flow rate measurements shall be taken at the same time as the concentration measurements.

(4) The TOC concentration (CGT) is the sum of the concentrations of the individual components. If compliance is being determined based on TOC, the permittee shall compute TOC for each run using Equation WW14 listed in 40 CFR 63.145(i)(4). Where:
CGT=Total concentration of TOC (minus methane and ethane) in vented gas stream, average of samples, dry basis, ppmv.
CGSi,j=Concentration of sample components in vented gas stream for sample j, dry basis, ppmv.
i=Identifier for a compound.
n=Number of components in the sample.
j=Identifier for a sample.
m=Number of samples in the sample run.

(5) [40 CFR 63.145(i)(5)]
The permittee determining compliance based on total organic HAPs concentration (CHAP) shall compute CHAP according to Equation WW14, except that only Table 9 compounds shall be summed.

(6) [40 CFR 63.145(i)(6)]
If the control device is a combustion device, comply with the requirements specified in A.2.v.iv.(6)(a) to determine oxygen concentration, and in A.2.v.iv.(6)(b) to calculate the percent oxygen correction.

(a) [40 CFR 63.145(i)(6)(ii)]
The concentration of TOC or total organic HAPs shall be corrected to 3 percent oxygen if the control device is a combustion device. The emission rate correction factor for excess air, composite sampling (i.e., integrated sampling) and analysis procedures of Method 3B of 40 CFR Part 60, Appendix A shall be used to determine the actual oxygen concentration (%02d). The samples shall be taken during the same time that the TOC (minus methane or ethane) or total organic HAPs samples are taken.

(b) The concentration corrected to 3 percent oxygen (CGc), when required, shall be computed using Equation WW15 listed in 40 CFR 63.145(i)(6)(ii). Where:
CGc=Concentration of TOC or organic HAPs corrected to 3 percent oxygen, dry basis, ppmv.
CGT=Total concentration of TOC (minus methane and ethane) in vented gas stream, average of samples, dry basis, ppmv.
%02d=Concentration of oxygen measured in vented gas stream, dry basis, percent by volume.

(7) The mass rate of either TOC (minus methane and ethane) or total organic HAPs shall be calculated using the following equations. Where the mass rate of TOC is being calculated, all organic compounds (minus methane and ethane) measured by methods specified in A.2.v.iv.(2) are summed using Equations WW16 and WW17. Where the mass rate of total organic HAPs is being calculated, only Table 9 compounds shall be summed using Equations WW16 and WW17 listed in 40 CFR 63.145(i)(7). Where:
CGa,i, CGb,i=Concentration of TOC (minus methane and ethane) or total organic HAPs, in vented gas stream, entering (CGa,i) and exiting (CGb,i) the control device, dry basis, ppmv.
QMGa, QMGb=Mass rate of TOC (minus methane and ethane) or total organic HAPs, in vented gas stream, entering (QMGa) and exiting (QMGb) the control device, dry basis, kilograms per hour.
MWi=Molecular weight of a component, kilogram/kilogram-mole.
QGa, QGb=Flow rate of gas stream entering (QGa) and exiting (QGb) the control device, dry standard cubic meters per hour.
K2=Constant, 41.57 x 10-9 (parts per million)-1 (gram-mole per standard cubic meter) (kilogram/gram), where standard temperature (gram-mole per standard cubic meter) is 20 Celsius.
i=Identifier for a compound.
n=Number of components in the sample.

(8) The percent reduction in TOC (minus methane and ethane) or total organic HAPs shall be calculated using Equation WW18 listed in 40 CFR 63.145(i)(8). Where:
E=Destruction efficiency of control device, percent.
QMGa, QMGb=Mass rate of TOC (minus methane and ethane) or total organic HAPs, in vented gas stream entering and exiting (QMGb) the control device, dry basis, kilograms per hour.

(9) [40 CFR 63.145(i)(9)]
If complying with the 95 percent reduction efficiency requirement, compliance is demonstrated if the mass destruction efficiency (calculated in Equation WW18) is 95 percent or greater. If complying with the 20 ppmv limit in A.2.r.iii.(2), compliance is demonstrated if the outlet TOC concentration, less methane and ethane, or total organic HAPs concentration is 20 ppmv, or less. For combustion control devices, the concentration shall be calculated on a dry basis, corrected to 3 percent oxygen.

2w. [40 CFR 63.146]
Process wastewater provisions-reporting

i [40 CFR 146(a)]
For each waste management unit, treatment process, or control device used to comply with A.2.q.ii for which the permittee seeks to monitor a parameter other than those

specified in A.2.t, the permittee shall submit a request for approval to monitor alternative parameters according to the procedures specified in A.2.za.v or A.2.za.vi.

ii. [40 CFR 63.146(b)]
The permittee shall submit the information specified in A.2.w.ii.(1) through A.2.w.ii.(6) as part of the NCS required by A.2.zb.ii.

(1) [40 CFR 63.146(b)(2) and Table 15]
For each new and existing source, the permittee shall submit the information specified in A.2.w.ii.(1)(a) through A.2.w.ii.(1)(i) for Table 8 and/or Table 9 compounds with the NCS. Other requirements for the NCS are specified in A.2.zb.ii.

(a) Process unit identification code and a description of the process unit;

(b) Stream identification code;

(c) Concentration of Table 8 and/or Table 9 compound(s) (ppmv);

(i) Except when A.2.k.v is used, annual average concentration as specified in A.2.k.iii or A.2.k.iv and A.2.u.

(ii) When A.2.k.v is used, indicate the wastewater stream is a designated Group 1 wastewater stream.

(d) Flow rate (lpm);

(i) When A.2.k.v is used, indicate the wastewater stream is a designated Group 1 wastewater stream.

(ii) Except when A.2.k.v is used, annual average flow rate as specified in A.2.k.iii or A.2.k.iv and in A.2.u.

(e) Indicate whether the stream is Group 1 or Group 2. If Group 1, indicate whether it is Group 1 for Table 8 or Table 9 compounds or for both Table 8 and Table 9 compounds;

(f) Cite the section of A.2.q for the compliance option used;

(g) Treatment process identification;

(h) Waste management units identification; and

(i) Intended control device

(2) [40 CFR 63.146(b)(4) and Table 17]
For each treatment process identified in A.2.w.ii.(1) that receives, manages, or treats a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, the permittee shall submit the information specified in A.2.w.ii.(2)(a) through A.2.w.ii.(2)(d) with the NCS. Other requirements for the NCS are specified in A.2.zb.ii.

(a) Treatment process identification - Identification codes should correspond to those listed in A.2.w.ii.(1).

(b) Description of the treatment process

(c) Wastewater stream(s) treated - Stream identification code for each wastewater stream treated by each treatment unit. Identification codes should correspond to entries listed in A.2.w.ii.(1).

(d) Monitoring parameters - Parameter(s) to be monitored or measured in accordance with A.2.t.

(3) [40 CFR 63.146(b)(5) and Table 18]
For each waste management unit identified in A.2.w.ii.(1)(a) that receives or manages a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, the permittee shall submit the information specified in A.2.w.ii.(3)(a) through A.2.w.ii.(3)(c) with the NCS. Other requirements for the NCS are specified in A.2.zb.ii.

(a) Identification codes for waste management units should correspond to those listed in A.2.w.ii.(1).

(b) Description of waste management unit.

(c) Wastewater stream(s) received or managed - Stream identification code for each wastewater stream received or managed by each waste management unit. Identification codes should correspond to entries listed in A.2.w.ii.(1).

(4) [40 CFR 63.146(b)(6) and Table 19]
For each residual removed from a Group 1 wastewater stream, the permittee shall report the information specified in A.2.w.ii.(4)(a) through A.2.w.ii.(4)(h) with the NCS. Other requirements for the NCS are specified in A.2.zb.ii.

(a) Identification of residual removed from Group 1 wastewater stream;

(b) Description of residual;

(c) Identification of stream from which residual is removed;

(d) Identification of treatment process from which residual originates;

(e) Indicate whether residual is sold, returned to production process, or returned to waste management unit or treatment process; or whether HAP mass of residual is destroyed by 99 percent;

(f) Control device identification code;

(g) If the fate of the residual is such that the HAP mass is destroyed by 99 percent, give description of the control device used for HAP destruction;

(h) If the fate of the residual is such that the HAP mass is destroyed by 99 percent, provide an estimate of control device efficiency and attach substantiation in accordance with A.2.w.ii.(7).

(5) [40 CFR 63.146(b)(7)]
For each control device used to comply with A.2.l through A.2.r, the permittee shall submit the information specified in A.2.w.ii.(5)(a) and in either A.2.w.ii.(5)(b) or A.2.w.ii.(5)(c).

(a) [40 CFR 63.146(b)(7)(ii)(A)]
The information on parameter ranges specified in A.2.zb.ii.(2) for the applicable parameters specified in A.2.t.iv, unless the parameter range has already been established in the operating permit; and either

(b) [40 CFR 63.146(b)(7)(ii)(B)]
The design evaluation specified in A.2.r.iv.(2); or

(c) [40 CFR 63.146(b)(7)(ii)(C)]
Results of the performance test specified in A.2.r.iv.(1). Performance test results shall include operating ranges of key process and control parameters during the performance test; the value of each parameter being monitored in accordance with A.2.t; and applicable supporting calculations.

(6) [40 CFR 63.146(b)(9)]
Except as provided in A.2.w.ii.(7)(c) for each waste management unit or treatment process used to comply with A.2.q.ii, the permittee shall submit the information specified in either A.2.w.ii.(7)(a) or A.2.w.ii.(7)(b).

(a) [40 CFR 63.146(b)(9)(i)]
The design evaluation and supporting documentation specified in A.2.q.iii.(2).

(b) [40 CFR 63.146(b)(9)(ii)]
Results of the performance test specified in A.2.q.iii.(2). Performance test results shall include operating ranges of key process and control parameters during the performance test; the value of each parameter being monitored in accordance with A.2.t; and applicable supporting calculations.

iii. [40 CFR 63.146(c)]
For each waste management unit that receives, manages, or treats a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, the permittee shall submit as part of the next Periodic Report required by A.2.zb.iii the results of each inspection required by A.2.t.i in which a control equipment failure was identified. Control equipment failure is defined for each waste management unit in A.2.l through A.2.p. Each Periodic Report shall include the date of the inspection, identification of each waste management unit in which a control equipment failure was detected, description of the failure, and description of the nature of and date the repair was made.

iv. [40 CFR 63.146(e)]
Except as provided in A.2.w.v, for each control device used to comply with A.2.l through A.2.r, the permittee shall submit as part of the next Periodic Report required by A.2.zb.iii the information specified in (1) and (2) below:

(1) [40 CFR 63.146(e)(1) and Table 20]
For each boiler or process heater with a design heat input capacity less than 44 megawatts and the vent stream is not mixed with the primary fuel; the permittee shall report all daily average firebox temperatures that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected. The daily average is the average of all values recorded during the operating day, as specified in A.2.x.iv. The Periodic Reports shall include the duration of periods when monitoring data are not collected for each excursion as defined in A.2.zb.iii.(2)(b)(i).

(2) [40 CFR 63.146(e)(2) and Table 20]
For all control devices; the permittee shall report the times and durations of all periods when the vent stream is diverted through a bypass line or the monitor is

not operating, or the permittee shall report all monthly inspections that show the valves are moved to the diverting position or the seal has been changed.

v. [40 CFR 63.146(f)]
Where the permittee obtains approval to use a treatment process or control device other than one for which monitoring requirements are specified in A.2.t, or to monitor parameters other than those specified in A.2.t, the appropriate reporting requirements will be specified in the operating permit.

2x. [40 CFR 63.147]
Process wastewater provisions-record keeping

i [40 CFR 63.147(a)]
The permittee transferring a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream in accordance with A.2.k.viii shall keep a record of the notice sent to the treatment operator stating that the wastewater stream or residual contains organic HAPs which are required to be managed and treated in accordance with the provisions of A.2.

ii. [40 CFR 63.147(b)]
The permittee shall keep in a readily accessible location the records specified in A.2.x.i.(1) through A.2.x.i.(6).

(1) [40 CFR 63.147(b)(1)]
A record that each waste management unit inspection required by A.2.l through A.2.p was performed.

(2) [40 CFR 63.147(b)(2)]
A record that each inspection for control devices required by A.2.r was performed.

(3) [40 CFR 63.147(b)(4)]
For A.2.t.ii, the permittee shall keep the records specified in the operating permit.

(4) [40 CFR 63.147(b)(5)]
Except as provided in A.2.x.v, continuous records of the monitored parameters specified in A.2.t.iii.

(5) [40 CFR 63.147(b)(6)]
Documentation of a decision to use an extension, as specified in A.2.l.iv, which shall include a description of the failure, documentation that alternate storage capacity is unavailable, and specification of a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical.

(6) [40 CFR 63.147(b)(7)]
Documentation of a decision to use a delay of repair due to unavailability of parts, as specified in A.2.s.iii, shall include a description of the failure, the reason additional time was necessary (including a statement of why replacement parts were not kept on site and when the manufacturer promised delivery), and the date when repair was completed.

iii. [40 CFR 63.147(c)]
For each boiler or process heater used to comply with A.2.l through A.2.r, the permittee shall keep a record of any changes in the location at which the vent stream is introduced into the flame zone as required in A.2.r.iii.

iv. [40 CFR 63.147(d)]
The permittee shall keep records of the daily average value of each continuously monitored parameter for each operating day as specified in A.2.zb.vi.

v. [40 CFR 63.147(e)]
Where the permittee obtains approval to use a control device other than one for which monitoring requirements are specified in A.2.t, or to monitor parameters other than those specified in A.2.t, the appropriate record keeping requirements will be specified in the operating permit.

vi. [40 CFR 63.147(f)]
If the permittee uses process knowledge to determine the annual average concentration of a wastewater stream as specified in A.2.u.ii.(3) and/or uses process knowledge to determine the annual average flow rate as specified in A.2.u.iii.(1), and determines that the wastewater stream is not a Group 1 wastewater stream, the permittee shall keep in a readily accessible location the documentation of how process knowledge was used to determine the annual average concentration and/or the annual average flow rate of the wastewater stream.

2y. [40 CFR 63.148]
Leak inspection provisions

i [40 CFR 63.148(a)]
Except as provided in A.2.y.xi, for each vapor collection system, closed-vent system, fixed roof, cover, or enclosure required to comply with this section, the permittee shall comply with the requirements of A.2.y.ii through A.2.y.x.

ii. [40 CFR 63.148(b)]
Except as provided in A.2.y.vii and A.2.viii, each vapor collection system and closed-vent system shall be inspected according to the procedures and schedule specified in A.2.y.ii.(1) and A.2.y.ii.(2) and each fixed roof, cover, and enclosure shall be inspected according to the procedures and schedule specified in A.2.y.ii.(3).

(1) [40 CFR 63.148(b)(1)]
If the vapor collection system or closed vent system is constructed of hard-piping, the permittee shall:

(a) Conduct an initial inspection according to the procedures in A.2.y.iii, and

(b) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(2) [40 CFR 63.148(b)(2)]
If the vapor collection system or closed vent system is constructed of ductwork, the permittee shall:

(a) Conduct an initial inspection according to the procedures in A.2.y.iii, and

(b) Conduct annual inspections according to the procedures in A.2.y.iii.

(c) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(3) [40 CFR 63.148(b)(3)]
For each fixed roof, cover, and enclosure, the permittee shall:

(a) Conduct an initial inspection according to the procedures in A.2.y.iii, and

(b) Conduct semi-annual visual inspections for visible, audible, or olfactory indications of leaks as specified in A.2.l through A.2.p.

iii. [40 CFR 63.148(c)]
Each vapor collection system, closed vent system, fixed roof, cover, and enclosure shall be inspected according to the procedures specified in A.2.y.iii.(1) through A.2.y.iii.(5).

(1) [40 CFR 63.148(c)(1)]
Inspections shall be conducted in accordance with Method 21 of 40 CFR Part 60, Appendix A.

(a) [40 CFR 63.148(c)(2)(i)]
Except as provided in A.2.y.iii.(2), 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 HAPs or

volatile organic compounds, the average stream response factor shall be calculated on an inert-free basis.

(b) [40 CFR 63.148(c)(2)(ii)]
If no instrument is available at the plant site that will meet the performance criteria specified in A.2.y.iii.(1), 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.2.y.iii.(2)(a).

(2) [40 CFR 63.148(c)(3)]
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.

(3) [40 CFR 63.148(c)(4)]
Calibration gases shall be as follows:

(a) Zero air (less than 10 parts per million hydrocarbon in air); and

(b) 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 A.2.y.ii.(2)(a). In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.

(4) [40 CFR 63.148(c)(5)]
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 A.3.aa.ii and A.3.aa.iii. The permittee shall subtract background reading from the maximum concentration indicated by the instrument.

(5) [40 CFR 63.148(c)(6)]
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.

iv. [40 CFR 63.148(d)]
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.2.y.v.

(1) [40 CFR 63.148(d)(1)]
A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(2) [40 CFR 63.148(d)(2)]
Repair shall be completed no later than 15 calendar days after the leak is detected, except as provided in A.2.y.iv.(3).

(3) [40 CFR 63.148(d)(3)]
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.

v. [40 CFR 63.148(e)]
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.

vi. [40 CFR 63.148(f)]
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 the provisions of either A.2.y.vi.(1) or A.2.y.vi.(2), except as provided in A.2.y.vi.(3).

(1) [40 CFR 63.148(f)(1)]
Install, calibrate, maintain, and operate a flow indicator that determines whether vent stream flow is present at least once every 15 minutes. Records shall be generated as specified in A.2.h.i.(2). The flow indicator shall be installed at the entrance to any bypass line; or

(2) [40 CFR 63.148(f)(2)]
Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.

(3) [40 CFR 63.148(f)(3)]
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 section.

vii. [40 CFR 63.148(g)]
Any parts of the vapor collection system, closed vent system, fixed roof, cover, or enclosure that are designated, as described in A.2.y.xi.(1), as unsafe to inspect are exempt from the inspection requirements of A.2.y.ii.(1), A.2.y.ii.(2) and A.2.y.ii.(3)(a) if:

(1) [40 CFR 63.148(g)(1)]
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.2.y.ii.(1), A.2.y.ii.(2) or A.2.y.ii.(3)(a); and

(2) [40 CFR 63.148(g)(2)]
The permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

viii. [40 CFR 63.148(h)]
Any parts of the vapor collection system, closed vent system, fixed roof, cover, or enclosure that are designated, as described in A.2.y.ix.(2), as difficult to inspect are exempt from the inspection requirements of A.2.y.ii.(1), A.2.y.ii.(2) and A.2.y.ii.(3)(a) if:

(1) [40 CFR 63.148(h)(1)]
The permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

(2) [40 CFR 63.148(h)(2)]
The permittee has a written plan that requires inspection of the equipment at least once every 5 years.

ix. [40 CFR 63.148(i)]
The permittee shall record the information specified in A.2.y.ix.(1) through A.2.y.ix.(5).

(1) [40 CFR 63.148(i)(1)]
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.

(2) [40 CFR 63.148(i)(2)]
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.

(3) [40 CFR 63.148(i)(3)]
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.2.y.ix.(3)(a) or A.2.y.ix.(3)(b).

(a) Hourly records of whether the flow indicator specified under A.2.y.vi.(1) 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.

(b) Where a seal mechanism is used to comply with A.2.y.vi.(2), 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.

(4) [40 CFR 63.148(i)(4)]
For each inspection during which a leak is detected, a record of the information specified in A.2.y.ix.(4)(a) through A.2.y.ix.(4)(h).

(a) The instrument identification numbers; operator name or initials; and identification of the equipment.

(b) The date the leak was detected and the date of the first attempt to repair the leak.

(c) Maximum instrument reading measured by the method specified in A.2.y.iv after the leak is successfully repaired or determined to be non-repairable.

(d) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(e) The name, initials, or other form of identification of the person whose decision it was that repair could not be effected without a shutdown.

(f) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.

(g) Dates of shutdowns that occur while the equipment is unrepaired.

(h) The date of successful repair of the leak.

(5) [40 CFR 63.148(i)(5)]
For each inspection conducted in accordance with A.2.y.iii 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.

(6) [40 CFR 63.148(i)(6)]
For each visual inspection conducted in accordance with A.2.y.ii.(1)(b) or A.2.y.ii.(3)(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

x. [40 CFR 63.148(j)]
The permittee shall submit with the reports required by A.3.zc or with the reports required by A.2.zb.iii, the information specified in A.2.y.x.(1) through A.2.y.x.(3).

(1) [40 CFR 63.148(j)(1)]
The information specified in A.2.y.ix.(4);

(2) [40 CFR 63.148(j)(2)]
Reports of the times of all periods recorded under A.2.y.ix.(3)(a) when the vent stream is diverted from the control device through a bypass line; and

(3) [40 CFR 63.148(j)(3)]
Reports of all periods recorded under A.2.y.ix.(3)(b) 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.

xi. [40 CFR 63.148(k)]
If a closed-vent system subject to A.2.y is also subject to A.3.s, the permittee shall comply with the provisions of A.3.s and is exempt from the requirements of A.2.y.

2z. [40 CFR 63.149]
Control requirements for certain liquid streams in open systems within a CMPU

i [40 CFR 63.149(a)]
The permittee shall comply with the provisions of Table 35 of A.2.zc, for each item of equipment meeting all the criteria specified in A.2.z.ii through A.2.z.iv and either A.2.z.v.(1) or A.2.z.v.(2).

ii. [40 CFR 63.149(b)]
The item of equipment is of a type identified in Table 35 of A.2.zc;

iii. [40 CFR 63.149(c)]
The item of equipment is part of a CMPU that meets the criteria of A.1.a;

iv [40 CFR 63.149(d)]
The item of equipment is controlled less stringently than in Table 35 and is not listed in A.1.d, and the item of equipment is not otherwise exempt from controls by the provisions of A.1, A.2, and A.3; and

v. [40 CFR 63.149(e)]
The item of equipment is a:

2z. (1) [40 CFR 63.149(e)(1)]
drain, drain hub, manhole, lift station, trench, pipe, or oil/water separator that conveys water with a total annual average concentration greater than or equal to 10,000 parts per million by weight of Table 9 compounds at any flow rate; or a total annual average concentration greater than or equal to 1,000 parts per million by weight of Table 9 compounds at an annual average flow rate greater than or equal to 10 liters per minute. At a CMPU subject to the new source requirements of A.1.i.i or A.1.i.ii, the criteria of this section are also met if the item of equipment conveys water with an annual average concentration greater than or equal to 10 parts per million by weight of any Table 8 compound at an annual average flow rate greater than or equal to 0.02 liter per minute, or

2z. (2) [40 CFR 63.149(3)(2)]
tank that receives one or more streams that contain water with a total annual average concentration greater than or equal to 1,000 ppm (by weight) of Table 9 compounds at an annual average flow rate greater than or equal to 10 liters per minute. At a CMPU subject to the new source requirements of 40 A.1.i.i or A.1.i.ii, the criteria of this section are also met if the tank receives one or more streams that contain water with an annual average concentration greater than or equal to 10 parts per million by weight of any Table 8 compound at an annual average flow rate greater than or equal to 0.02 liter per minute. The permittee shall determine the characteristics of the stream as specified in (a) or (b) below:

(a) The characteristics of the stream being received shall be determined at the inlet to the tank.

(b) The characteristics shall be determined according to the procedures in A.2.u.ii and A.2.u.iii.

2za. [40 CFR 63.151]
Initial notification

i [40 CFR 63.151(a)]
The permittee shall submit the reports listed in A.2.za.i.(1) through A.2.za.i.(5) below.

(1) An Initial Notification described in A.2.za.ii, and

(2) An Implementation Plan for new sources subject to A.2, unless an operating permit application has been submitted prior to the date the Implementation Plan is due and the permittee has elected to include the information specified in A.2.zb.v in that application. The submittal date and contents of the Implementation Plan are specified in A.2.za.iii.

(3) A NCS described in A.2.zb,

(4) Periodic Reports described in A.2.zb, and

(5) Other reports described in A.2.zb.

ii. [40 CFR 63.151(b)]
The permittee shall submit a written Initial Notification, containing the information described in A.2.za.ii.(1), according to the schedule in A.2.za.ii.(2).

(1) [40 CFR 63.151(b)(1)]
The Initial Notification shall include the following information:

(a) The name and address of the permittee;

(b) The address (physical location) of the affected source;

(c) An identification of the kinds of emission points within the CMPUs that are subject to A.2;

(d) An identification of the chemical manufacturing processes subject to A.2; and

(e) A statement of whether the source can achieve compliance by the relevant compliance date specified in A.1.

(2) [40 CFR 63.151(b)(2)]
The Initial Notification shall be submitted according to the schedule in (a) or (b) below:

(a) For an existing source, the Initial Notification shall be submitted within 120 calendar days after the 4/22/94.

(b) For a new source that has an initial start-up 90 calendar days after 4/22/94 or later, the application for approval of construction or reconstruction required by 40 CFR 63.5(d) of Subpart A shall be submitted in lieu of the

Initial Notification. The application shall be submitted as soon as practicable before construction or reconstruction is planned to commence (but it need not be sooner than 90 calendar days after 4/22/94).

iii. [40 CFR 63.151(c)(2)(i)]
For a new source that has an initial start-up 90 calendar days after 4/22/94 or later, the Implementation Plan including the information specified in A.2.zb.v shall be submitted with the application for approval of construction or reconstruction by the date specified in A.2.za.ii.(2)(b).

iv. [40 CFR 63.151(e)]
The permittee expressly referred to this section shall report, in an Implementation Plan or operating permit application, the information listed in (1) through (4) below:

(1) [40 CFR 63.151(e)(1)]
A list designating each emission point complying with A.2.c through A.2.z and whether each emission point is Group 1 or Group 2.

(2) [40 CFR 63.151(e)(2)]
The control technology or method of compliance that will be applied to each Group 1 emission point.

(3) [40 CFR 63.151(e)(3)]
A statement that the compliance demonstration, monitoring, inspection, record keeping, and reporting provisions in A.2.c through A.2.z that are applicable to each emission point will be implemented beginning on the date of compliance.

(4) [40 CFR 63.151(e)(5)]
The monitoring information in A.2.za.v if, for any emission point, the permittee of a source seeks to comply through use of a control technique other than those for which monitoring parameters are specified in A.2.d for process vents and A.2.t for process wastewater.

v. [40 CFR 63.151(f)]
The permittee who has been directed by any section of A.2 that expressly references this section to set unique monitoring parameters or who requests approval to monitor a different parameter than those listed in A.2.d or A.2.t for process wastewater shall submit the information specified in (1), (2), and (3) below with the operating permit application.

(1) [40 CFR 63.151(f)(1)]
A description of the parameter(s) to be monitored to ensure the control technology 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) [40 CFR 63.151(f)(2)]
A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device, the schedule for this demonstration, and a statement that the permittee will establish a range for the monitored parameter as part of the NCS report required in A.2.zb.ii, unless this information has already been included in the operating permit application.

(3) [40 CFR 63.151(f)(3)]
The frequency and content of monitoring, recording, and reporting if monitoring and recording is not continuous, or if reports of daily average values when the monitored parameter value is outside the range established in the operating permit or NCS will not be included in Periodic Reports required under A.2.zb.iii. The rationale for the proposed monitoring, recording, and reporting system shall be included.

vi. [40 CFR 63.151(g)]
The permittee may request approval to use alternatives to the continuous operating parameter monitoring and record keeping provisions listed in A.2.d, A.2.g, and A.2.h for process vents, A.2.t, A.2.w, and A.2.x for wastewater.

(1) [40 CFR 63.151(g)(1)]
Requests shall be included in the operating permit application and shall contain the information specified in A.2.za.vi.(3) through A.2.za.vi.(5), as applicable.

(2) [40 CFR 63.151(g)(2)]
The provisions in 40 CFR 63.8(f)(5)(i) of Subpart A shall govern the review and approval of requests.

(3) [40 CFR 63.151(g)(3)]
The permittee of a source that does not have an automated monitoring and recording system capable of measuring parameter values at least once every 15 minutes and generating continuous records may request approval to use a non-automated system with less frequent monitoring.

(a) [40 CFR 63.151(g)(3)(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 values shall be calculated from these hourly values and recorded.

(b) [40 CFR 63.151(g)(3)(ii)]
The request shall contain:

(i) A description of the planned monitoring and record keeping system;

(ii) Documentation that the source does not have an automated monitoring and recording system;

(iii) Justification for requesting an alternative monitoring and record keeping system; and

(iv) Demonstration to USEPA Region V-Administrator's satisfaction that the proposed monitoring frequency is sufficient to represent control device operating conditions considering typical variability of the specific process and control device operating parameter being monitored.

(4) [40 CFR 63.151(g)(4)]
The permittee may request approval to use an automated data compression recording system that does not record monitored operating parameter values at a set frequency (for example once every 15 minutes) but records all values that meet set criteria for variation from previously recorded values.

(a) [40 CFR 63.151(g)(4)(i)]
The requested system shall be designed to:

(i) Measure the operating parameter value at least once every 15 minutes.

(ii) Record at least four values each hour during periods of operation.

(iii) Record the date and time when monitors are turned off or on.

(iv) Recognize unchanging data that may indicate the monitor is not functioning properly, alert the operator, and record the incident.

(v) Compute daily average values of the monitored operating parameter based on recorded data.

(vi) If the daily average is not an excursion, as defined in A.2.zb.iii.(2)(b), 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.

(b) [40 CFR 63.151(g)(4)(ii)]
The request shall contain a description of the monitoring system and data compression recording system, including the criteria used to determine which monitored values are recorded and retained, the method for calculating daily averages, and a demonstration that the system meets all criteria in A.2.za.vi.(4)(a).

(5) [40 CFR 63.151(g)(5)]
The permittee may request approval to use other alternative monitoring systems according to the procedures specified in 40 CFR 63.8(f) of Subpart A.

vii. [40 CFR 63.151(h)]
The permittee required to prepare an Implementation Plan, or otherwise required to submit a report, under A.2.za.iii or A.2.za.iv shall also submit a supplement for any additional alternative controls or operating scenarios that may be used to achieve compliance.

viii. [40 CFR 63.151(j)]
The permittee of a source subject to A.2, shall report to the USEPA Region V-Administrator, with a copy to the Portsmouth Local Air Agency, under the circumstances described in A.2.za.viii.(1), A.2.za.viii.(2), and A.2.za.viii.(3) unless the relevant information has been included and submitted in an operating permit application or amendment, or as otherwise specified by the permitting authority. The information shall be submitted within 180 calendar days after the change is made or the information regarding the change is known to the source. The update may be submitted in the next Periodic Report if the change is made after the date the NCS is due.

(1) [40 CFR 63.151(j)(1)]
Whenever a deliberate change is made such that the group status of any emission point changes. The information submitted shall include a compliance schedule as specified in A.1 if the emission point becomes Group 1.

(2) [40 CFR 63.151(j)(2)]
Whenever the permittee elects to achieve compliance with A.2 by using a control technique other than that previously reported to the USEPA Region V-Administrator, with a copy to the Portsmouth Local Air Agency, or plans to monitor a different parameter, or operate a control device in a manner other than that previously reported.

(3) [40 CFR 63.151(j)(3)]
Whenever an emission point or a CMPU is added to a source, a written addendum to the information submitted under A.2.za.iv containing information on the new emission point shall be submitted.

2zb. [40 CFR 63.152]
General reporting and continuous records

i [40 CFR 63.152(a)]
The permittee shall submit the reports listed in A.2.zb.i.(1) through A.2.zb.i.(5) and keep continuous records of monitored parameters as specified in A.2.zb.vi.

(1) An Initial Notification described in A.2.za.ii.

(2) An Implementation Plan described in A.2.za.iii, and A.2.za.iv for new sources.

(3) A NCS described in A.2.zb.ii.

(4) Periodic Reports described in A.2.zb.iii.

(5) Other reports described in A.2.zb.iv and A.2.zb.v.

ii. [40 CFR 63.152(b)]
The permittee of a source subject to A.2 shall submit a NCS within 150 calendar days after the compliance dates specified in A.1.

(1) [40 CFR 63.152(b)(1)]
The notification shall include the results of any emission point group determinations, performance tests, inspections, continuous monitoring system performance evaluations, values of monitored parameters established during performance tests, and any other information used to demonstrate compliance or required to be included in the NCS under A.2.g for process vents and A.2.w for process wastewater.

(a) [40 CFR 63.152(b)(1)(ii)]
For performance tests and group determinations that are based on measurements, the NCS shall include one complete test report 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 required in A.2.g and A.2.w for process wastewater shall be submitted, but a complete test report is not required.

(b) [40 CFR 63.152(b)(1)(ii)]
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.

(2) [40 CFR 63.152(b)(2)]
For each monitored parameter for which a range is required to be established under A.2.d for process vents, A.2.t for process wastewater or A.2.za.v, or A.2.zb.v, the NCS shall include the information in A.2.zb.ii.(2)(a), A.2.zb.ii.(2)(b), and A.2.zb.ii.(2)(c), unless the range and the operating day definition have been established in the operating permit. The record keeping and reporting requirements applicable to storage vessels are located in A.2.i.

(a) [40 CFR 63.152(b)(2)(i)]
The specific range of the monitored parameter(s) for each emission point;

(b) [40 CFR 63.152(b)(2)(ii)]
The rationale for the specific range for each parameter for each emission point, including any data and calculations used to develop the range and a description of why the range indicates proper operation of the control device.

(i) [40 CFR 63.152(b)(2)(ii)(A)]
If a performance test is required by A.2 for a control device, the range shall be based on the parameter values measured during the performance test and may be supplemented by engineering assessments and/or manufacturer's recommendations. Performance testing is not required to be conducted over the entire range of permitted parameter values.

(ii) [40 CFR 63.152(b)(2)(ii)(B)]
If a performance test is not required by A.2 for a control device, the range may be based solely on engineering assessments and/or manufacturer's recommendations.

(c) [40 CFR 63.152(b)(2)(iii)]
A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

(3) [40 CFR 63.152(b)(4)]
If any emission point is subject to A.2 and to other standards as specified in A.2.b and if the provisions of A.2.b allow the permittee to choose which testing, monitoring, reporting, and record keeping provisions will be followed, then the NCS shall indicate which rule's requirements will be followed for testing, monitoring, reporting, and record keeping.

(4) [40 CFR 63.152(b)(5)]
The permittee who transfers a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream for treatment pursuant to A.2.k.vii shall include in the NCS the name and location of the transferee and a description of the Group 1 wastewater stream or residual sent to the treatment facility.

iii. [40 CFR 63.152(c)]
The permittee of a source subject to A.2 shall submit Periodic Reports.

(1) [40 CFR 63.152(c)(1)]
Except as specified under A.2.zb.iii.(5) and A.2.zb.iii.(6), a report containing the information in A.2.zb.iii.(2), A.2.zb.iii.(3), and A.2.zb.iii.(4) shall be submitted semiannually no later than 60 calendar days after the end of each 6-month period. The first report shall be submitted no later than 8 months after the date the NCS is due and shall cover the 6-month period beginning on the date the NCS is due.

(2) [40 CFR 63.152(c)(2)]
Except as provided in A.2.zb.iii.(2)(d), for an permittee of a source complying with the provisions of A.2.c through A.2.x for any emission points, Periodic Reports shall include all information specified in A.2.g and A.2.h for process vents, A.2.j for transfer operations, and A.2.w for process wastewater, including reports of periods when monitored parameters are outside their established ranges.

(a) [40 CFR 63.152(c)(2)(i)]
For each parameter or parameters required to be monitored for a control device, the permittee shall establish a range of parameter values to ensure that the device is being applied, operated and maintained properly. As specified in A.2.zb.ii.(2), these parameter values and the definition of an operating day shall be approved as part of and incorporated into the source's NCS or operating permit, as appropriate.

(b) [40 CFR 63.152(c)(2)(ii)]
The parameter monitoring data for Group 1 emission points that are required to perform continuous monitoring shall be used to determine compliance with the required operating conditions for the monitored control devices or recovery devices. For each excursion, except for excused excursions, the permittee shall be deemed to have failed to have applied the control in a manner that achieves the required operating conditions.

(i) [40 CFR 63.152(c)(1)(ii)(A)]
An excursion means any of the three cases listed below. For a control device or recovery device where multiple parameters are monitored, if one or more of the parameters meets the excursion

criteria in below, this is considered a single excursion for the control device or recovery device.

1) When the daily average value of one or more monitored parameters is outside the permitted range.

2) When the period of control device or recovery device operation is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data for at least 75 percent of the operating hours.

3) When the period of control device or recovery device operation is less than 4 hours in an operating day and more than one of the hours during the period of operation does not constitute a valid hour of data due to insufficient monitoring data.

4) Monitoring data are insufficient to constitute a valid hour of data, if measured values are unavailable for any of the 15-minute periods within the hour. For data compression systems approved under A.2.za.vi.(4), monitoring data are insufficient to calculate a valid hour of data if there are less than 4 data values recorded during the hour.

(ii) [40 CFR 63.152(c)(1)(ii)(B)]
The number of excused excursions for each control device or recovery device for each semiannual period is specified in below. This section applies to sources required to submit Periodic Reports semiannually or quarterly. The first semiannual period is the 6-month period starting the date the NCS is due.

1) six excused excursions for the first semiannual period;

2) five excused excursions for the second semiannual period;

3) four excused excursions for the third semiannual period;

4) three excused excursions for the fourth semiannual period;

5) two excused excursions for the fifth semiannual period; and

6) one excused excursions for the sixth and all subsequent semiannual periods.

(iii) [40 CFR 63.152(c)(1)(ii)(C)]
If a monitored parameter is outside its established range or monitoring data are not collected during periods of start-up, shutdown, or malfunction (and the source is operated during such periods in accordance with the source's start-up, shutdown, and malfunction plan) or during periods of non-operation of the CMPU or portion thereof (resulting in cessation of the emissions to which the monitoring applies), then the excursion is not a violation and, in cases where continuous monitoring is required, the excursion does not count toward the number of excused excursions for determining compliance.

(iv) [40 CFR 63.152(c)(1)(ii)(D)]
Nothing in A.2.zb.iii.(2)(b) shall be construed to allow or excuse a monitoring parameter excursion caused by any activity that violates other applicable provisions of A.1, A.2 or 40 CFR Part 63, Subpart A.

(v) [40 CFR 63.152(c)(1)(ii)(E)]
Section A.2.zb.iii.(2)(b), except A.2.zb.iii.(2)(b)(iii), shall apply only to emission points and control devices or recovery devices for which continuous monitoring is required by A.2.c through A.2.z.

(c) [40 CFR 63.152(c)(2)(iii)]
Periodic Reports shall include the daily average values of monitored parameters for both excused and unexcused excursions, as defined in A.2.zb.iii.(2)(b)(i). For excursions caused by lack of monitoring data, the duration of periods when monitoring data were not collected shall be specified.

(3) [40 CFR 63.152(c)(3)]
If any performance tests are reported in a Periodic Report, the following information shall be included:

(a) [40 CFR 63.152(c)(3)(i)]
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 A.2.zb.ii.(1)(b).

(b) [40 CFR 63.152(c)(3)(ii)]
For additional tests performed for the same kind of emission point using the same method, results and any other information required in A.2.g for process vents and A.2.w for process wastewater shall be submitted, but a complete test report is not required.

(4) [40 CFR 63.152(c)(4)]
Periodic Reports shall include the information in (a) through (d) below, as applicable:

(a) [40 CFR 63.152(c)(4)(i)]
For process vents, reports of process changes as required under A.2.h.vii, A.2.h.viii, A.2.h.ix, and A.2.h.x,

(b) [40 CFR 63.152(c)(4)(ii)]
Any supplements required under A.2.za.viii,

(c) [40 CFR 63.152(c)(4)(iii)]
Notification if any Group 2 emission point becomes a Group 1 emission point, including a compliance schedule as required in A.1, and

(d) [40 CFR 63.152(c)(4)(iv)]
For process wastewater streams sent for treatment pursuant to A.2.k.vii, reports of changes in the identity of the treatment facility or transferee.

iv. [40 CFR 63.152(d)(1)]
Other reports shall be submitted as specified in 40 CFR Part 63, Subpart A or in A.2.c through A.2.za. Reports of start-up, shutdown, and malfunction required by 40 CFR 63.10(d)(5) of Subpart A. The semi-annual start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under A.2.zb.iii instead of the schedule specified in 40 CFR 63.10(d)(5)(i) of Subpart A.

v. [40 CFR 63.152(e)]
The permittee shall submit the information specified in A.2.zb.v.(1) through A.2.zb.v.(3) with the operating permit application. The permittee shall submit written updates as amendments to the operating permit application on the schedule and under the circumstances described in A.2.za.viii. Notwithstanding, if the permittee has an operating permit under 40 CFR Part 70 or 71, the permittee shall follow the schedule and format required by the Ohio EPA.

(1) [40 CFR 63.152(e)(1)]
The information specified in A.2.za.v or A.2.za.vi for any emission points for which the permittee requests approval to monitor a unique parameter or use an alternative monitoring and recording system, and

(2) [40 CFR 63.152(e)(3)]
The information specified in A.2.za.iv for points not included in an emissions average.

(3) [40 CFR 63.152(e)(4)]
The information specified in A.2.za.vii as applicable.

vi. [40 CFR 63.152(f)]
If required to keep continuous records by A.2.h, A.2.j, A.2.x or other terms and conditions, the permittee shall keep records as specified in (1) through (7) below, unless an alternative record keeping system has been requested and approved under A.2.za.v or A.2.za.vi or A.2.zb.v or under 40 CFR 63.8(f) of Subpart A, and except as provided in A.2.zb.iii.(2)(b)(ii) or A.2.zb.vii.

(1) [40 CFR 63.152(f)(1)]
The monitoring system shall measure data values at least once every 15 minutes.

(2) [40 CFR 63.152(f)(2)]
The permittee shall record either:

(a) Each measured data value; or

(b) Block average values for 15-minute or shorter periods calculated from all measured data values during each period or at least one measured data value per minute if measured more frequently than once per minute.

(3) [40 CFR 63.152(f)(3)]
If the daily average value of a monitored parameter for a given operating day is within the range established in the NCS or operating permit, the permittee shall either:

(a) Retain block hourly average values for that operating day for 5 years and discard, at or after the end of that operating day, the 15-minute or more frequent average values and readings recorded under A.2.zb.vi.(2); or

(b) Retain the data recorded in A.2.zb.vi.(2) for 5 years.

(4) [40 CFR 63.152(f)(4)]
If the daily average value of a monitored parameter for a given operating day is outside the range established in the NCS or operating permit, the permittee shall retain the data recorded that operating day under A.2.zb.vi.(2) for 5 years.

(5) [40 CFR 63.152(f)(5)]
Daily average values of each continuously monitored parameter shall be calculated for each operating day, and retained for 5 years, except as specified in A.2.zb.vi.(6) and A.2.zb.vi.(7).

(a) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous, or the number of hours of operation per operating day if operation is not continuous.

(b) The operating day shall be the period from midnight to midnight.

(6) [40 CFR 63.152(f)(6)]
If all recorded values for a monitored parameter during an operating day are within the range established in the NCS or operating permit, the permittee may record that all values were within the range and retain this record for 5 years rather than calculating and recording a daily average for that operating day. For these operating days, the records required in A.2.zb.vi.(3) shall also be retained for 5 years.

(7) [40 CFR 63.152(f)(7)]
Monitoring data recorded during periods identified in A.2.zb.vi.(7)(a) through A.2.zb.vi.(7)(e) shall not be included in any average computed under A.2. Records shall be kept of the times and durations of all such periods and any other periods during process or control device operation when monitors are not operating.

(a) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;

(b) Start-ups;

(c) Shutdowns;

(d) Malfunctions;

(e) Periods of non-operation of the CMPU (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

vii. [40 CFR 63.152(g)]
For any parameter with respect to any item of equipment, the permittee may implement the record keeping requirements in A.2.zb.vii.(1) or A.2.zb.vii.(2) as alternatives to the continuous operating parameter monitoring and record keeping provisions listed in A.2.d, A.2.g, and A.2.h for process vents, A.2.j for transfer operations, A.2.t, A.2.w, and A.2.x for wastewater, and/or A.2.zb.vi, except that A.2.zb.vi.(7) shall apply. The permittee shall retain each record required by A.2.zb.vii (1) or A.2.zb.vii.(2) as provided in A.1.m, except as provided otherwise in A.2.zb.vi.(1) or A.2.zb.vi.(2).

(1) [40 CFR 63.152(g)(1)]
The permittee may retain only the 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 A.2.zb.vii.(1)(a) through A.2.zb.vii.(1)(f) are met. The permittee electing to comply with the requirements of A.2.zb.vii.(1) shall notify the USEPA Region V-Administrator, with a copy to the Portsmouth Local Air Agency, in the NCS or, if the NCS has already been submitted, in the Periodic Report immediately preceding implementation of the requirements of A.2.zb.vii.(1).

(a) [40 CFR 63.152(g)(1)(i)]
The monitoring system is capable of detecting unrealistic or impossible data during periods of operation other than startups, shutdowns, or malfunctions (e.g., a temperature reading of -200 C on a boiler), and will alert the operator by alarm or other means. The permittee shall record the occurrence. All instances of the alarm or other alert in an operating day constitute a single occurrence.

(b) [40 CFR 63.152(g)(1)(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 average is readily available to the USEPA Region V-Administrator and the Portsmouth Local Air Agency on-site during the operating day. The permittee shall record the occurrence of any period meeting the criteria in A.2.zb.vii.(1)(b)(i) through A.2.zb.vii.(1)(b)(iii). All instances in an operating day constitute a single occurrence.

(i) The running average is above the maximum or below the minimum established limits;

(ii) The running average is based on at least 6 1-hour average values; and

(iii) The running average reflects a period of operation other than a startup, shutdown, or malfunction.

(c) [40 CFR 63.152(g)(1)(iii)]
The monitoring system is capable of detecting unchanging data during periods of operation other than startups, 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

permittee shall record the occurrence. All instances of the alarm or other alert in an operating day constitute a single occurrence.

(d) [40 CFR 63.152(g)(1)(iv)]
The monitoring system will alert the permittee by an alarm or other means, if the running average parameter value calculated under A.2.zb.vii.(1)(b) reaches a set point that is appropriately related to the established limit for the parameter that is being monitored.

(e) [40 CFR 63.152(g)(1)(v)]
The permittee shall verify the proper functioning of the monitoring system, including its ability to comply with the requirements of A.2.zb.vii.(1), at the times specified in A.2.zb.vii.(1)(e)(i) through A.2.zb.vii.(1)(e)(iii). The permittee shall document that the required verifications occurred.

(i) Upon initial installation.

(ii) Annually after initial installation.

(iii) 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.

(f) [40 CFR 63.152(g)(1)(vi)]
The permittee shall retain the records identified in (i) through (iii) below.

(i) Identification of each parameter, for each item of equipment, for which the permittee has elected to comply with the requirements of A.2.zb.vii.

(ii) A description of the applicable monitoring system(s), and of how compliance will be achieved with each requirement of A.2.zb.vii.(1)(a) through A.2.zb.vii.(1)(e). The description shall identify the location and format (e.g., on-line storage; log entries) for each required record. If the description changes, the permittee shall retain both the current and the most recent superseded description. The description, and the most recent superseded description, shall be retained as provided in A.1.m, except as provided in A.2.zb.vii.(1)(f)(iv).

(iii) A description, and the date, of any change to the monitoring system that would reasonably be expected to affect its ability to comply with the requirements of A.2.zb.vii.(1).

(iv) The permittee subject to A.2.zb.vii.(1)(f)(ii) shall retain the current description of the monitoring system as long as the description is current, but not less than 5 years from the date of its creation. 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 permittee shall retain the most recent superseded description at least until 5 years from the date of its creation. The superseded description shall be retained on-site (or accessible from a central location by computer that provides access within 2 hours after a request) at least 6 months after its creation. Thereafter, the superseded description may be stored off-site.

(2) [40 CFR 63.152(g)(2)]
If the permittee has elected to implement the requirements of A.2.zb.vii.(1), and a period of 6 consecutive months has passed without an excursion as defined in A.2.zb.vii.(2)(d), the permittee is no longer required to record the daily average value for that parameter for that unit of equipment, for any operating day when the daily average value is less than the maximum, or greater than the minimum established limit. With approval by the USEPA Region V-Administrator, monitoring data generated prior to the compliance date of A.2 shall be credited toward the period of 6 consecutive months, if the parameter limit and the monitoring was required and/or approved by the USEPA Region V-Administrator.

(a) [40 CFR 63.152(g)(2)(i)]
If the permittee elects not to retain the daily average values, the permittee shall notify the USEPA Region V-Administrator, with a copy to the Portsmouth Local Air Agency, in the next Periodic Report. The notification shall identify the parameter and unit of equipment.

(b) [40 CFR 63.152(g)(2)(ii)]
If, on any operating day after the permittee has ceased recording daily averages as provided in A.2.zb.vii.(2), there is an excursion as defined in A.2.zb.vii.(2)(d), the permittee shall immediately resume retaining the daily average value for each day, and shall notify the USEPA Region V-Administrator, with a copy to the Portsmouth Local Air Agency, in the next Periodic Report. The permittee shall continue to retain each daily average value until another period of 6 consecutive months has passed without an excursion as defined in A.2.zb.vii.(2)(d).

(c) [40 CFR 63.152(g)(2)(iii)]
The permittee shall retain the records specified in A.2.zb.vii.(1)(a) through A.2.zb.vii.(1)(f). For any calendar week, if compliance with A.2.zb.vii.(1)(a), A.2.zb.vii.(1)(b), A.2.zb.vii.(1)(c), and A.2.zb.vii.(1)(d)

does not result in retention of a record of at least one occurrence or measured parameter value, the permittee shall record and retain at least one parameter value during a period of operation other than a startup, shutdown, or malfunction.

(d) [40 CFR 63.152(g)(2)(iv)]
For purposes of A.2.zb.vii, an excursion means that the 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 A.2.zb.vii.(2)(d)(i) and A.2.zb.vii.(2)(d)(ii).

(i) The daily average value during any start-up, shutdown, or malfunction shall not be considered an excursion for purposes of A.2.zb.vii.(2), if the permittee follows the applicable provisions of the startup, shutdown, and malfunction plan required by 40 CFR 63.6(e)(3) of Subpart A.

(ii) An excused excursion, as described in A.2.zb.iii.(2)(b)(ii) and A.2.zb.iii.(2)(b)(iii), shall not be considered an excursion for purposes of A.2.zb.vii.(2).

2zc. Tables

i Table 1 Process Vents--Coefficients for Total Resource Effectiveness for Existing Source Nonhalogenated and Halogenated Vent Streams

(1) Nonhalogenated stream:
Flare: a = 1.935; b = 3.660x10-1; c = -7.687x10-3; d = -7.333x10-4
Thermal Incinerator (0% heat recovery): a = 1.492; b = 6.267x10-2; c = 3.177x10-2; d = -1.159x10-3
Thermal Incinerator (70%heat recovery): a = 2.519; b = 1.183x10-2; c = 1.300x10-2; d = 4.790x10-2

(2) Halogenated stream:
Thermal Incinerator and scrubber: a = 3.995; b = 5.200x10-2; c = -1.769x10-3; d = 9.700x10-4

ii. Table 2. Process Vents--Coefficients for Total Resource Effectiveness for New Source Nonhalogenated and Halogenated Vent Stream

(1) Nonhalogenated stream:
Flare: a = 0.5276; b = 0.0998; c = -2.096 x 10-3; d = -2.000 x 10-4
Thermal Incinerator (0% heat recovery): 0.4068; b = 0.0171; c = 8.664 x 10-3; d = -3.162 x 10-4

Thermal Incinerator (70% heat recovery): a = 0.6868; b = 3.209 x 10-3; c = 3.546 x 10-3; d = 1.306 x 10-2

(2) Halogenated stream:
Thermal Incinerator and scrubber: a = 1.0895; b = 1.417 x 10-2; c =-4.822 x 10-4; d = 2.645 x 10-4

iii. Table 8.-- Organic HAP's Subject to the Wastewater Provisions for Process Units at New Sources

Chemical name - CAS Number
Allyl chloride - 107051
Benzene - 71432
Butadiene (1,3-) - 106990
Carbon disulfide - 75150
Carbon tetrachloride - 56235
Cumene - 98828
Ethylbenzene - 100414
Ethyl chloride (Chloroethane) - 75003
Ethylidene dichloride (1,1-Dichloroethane) - 75343
Hexachlorobutadiene - 87683
Hexachloroethane - 67721
Hexane - 100543
Methyl bromide (Bromomethane) - 74839
Methyl chloride (Chloromethane) - 74873
Phosgene - 75445
Tetrachloroethylene (Perchloroethylene) - 127184
Toluene - 108883
Trichloroethane (1,1,1-) (Methyl chloroform) - 71556
Trichloroethylene - 79016
Trimethylpentane (2,2,4-) - 540841
Vinyl chloride (chloroethylene) - 75014
Vinylidene chloride (1,1-Dichloroethylene) - 75354
Xylene (m-) - 108383
Xylene (p-) - 106423

iv. Table 9.-- Organic HAP's Subject to the Wastewater Provisions for Process Units at New and Existing Sources and Corresponding Fraction Removed (Fr) Values

Chemical name - CAS No. - Fr
Acetaldehyde - 75070 - 0.95
Acetonitrile - 75058 - 0.62
Acetophenone - 98862 - 0.72
Acrolein - 107028 - 0.96

Acrylonitrile - 107131 - 0.96
Allyl chloride - 107051 - 0.99
Benzene - 71432 - 0.99
Benzyl chloride - 100447 - 0.99
Biphenyl - 92524 - 0.99
Bromoform - 75252 - 0.99
Butadiene (1,3-) - 106990 - 0.99
Carbon disulfide - 75150 - 0.99
Carbon tetrachloride - 56235 - 0.99
Chlorobenzene - 108907 - 0.99
Chloroform - 67663 - 0.99
Chloroprene (2-Chloro-1,3-butadiene) - 126998 - 0.99
Cumene - 98828 - 0.99
Dichlorobenzene (p-) - 106467 - 0.99
Dichloroethane (1,2-) (Ethylene dichloride) - 107062 - 0.99
Dichloroethyl ether (Bis(2-chloroethyl)ether) - 111444 - 0.87
Dichloropropene (1,3-) - 542756 - 0.99
Diethyl sulfate - 64675 - 0.90
Dimethyl sulfate - 77781 - 0.53
Dimethylaniline (N,N-) - 121697 - 0.99
Dimethylhydrazine (1,1-) - 57147 - 0.57
Dinitrophenol (2,4-) - 51285 - 0.99
Dinitrotoluene (2,4-) - 121142 - 0.38
Dioxane (1,4-) (1,4-Diethyleneoxide) - 123911 - 0.37
Epichlorohydrin(1-Chloro-2,3-epoxypropane) - 106898 - 0.91
Ethyl acrylate - 140885 - 0.99
Ethylbenzene - 100414 - 0.99
Ethyl chloride (Chloroethane) - 75003 - 0.99
Ethylene dibromide (Dibromomethane) - 106934 - 0.99
Ethylene glycol dimethyl ether - 110714 - 0.90
Ethylene glycol monobutyl ether acetate - 112072 - 0.76
Ethylene glycol monomethyl ether acetate - 110496 - 0.28
Ethylene oxide - 75218 - 0.98
Ethylidene dichloride (1,1-Dichloroethane) - 75343 - 0.99
Hexachlorobenzene - 118741 - 0.99
Hexachlorobutadiene - 87683 - 0.99
Hexachloroethane - 67721 - 0.99
Hexane - 110543 - 0.99
Isophorone - 78591 - 0.60
Methanol - 67561 - 0.31
Methyl bromide (Bromomethane) - 74839 - 0.99
Methyl chloride (Chloromethane) - 74873 - 0.99
Methyl ethyl ketone (2-Butanone) - 78933 - 0.95
Methyl isobutyl ketone (Hexone) - 108101 - 0.99

Methyl methacrylate - 80626 - 0.98
Methyl tert-butyl ether - 1634044 - 0.99
Methylene chloride (Dichloromethane) - 75092 - 0.99
Naphthalene - 91203 - 0.99
Nitrobenzene - 98953 - 0.80
Nitropropane (2-) - 79469 - 0.98
Phosgene - 75445 - 0.99
Propionaldehyde - 123386 - 0.99
Propylene dichloride (1,2-Dichloropropene) - 78875 - 0.99
Propylene oxide - 75569 - 0.99
Styrene - 100425 - 0.99
Tetrachloromethane (1,1,2,2-) - 79345 - 0.99
Tetrachloroethylene (Perchloroethylene) - 127184 - 0.99
Toluene - 108883 - 0.99
Toluidine (o-) - 95534 - 0.44
Trichlorobenzene (1,2,4-) - 120821 - 0.99
Trichloroethane (1,1,1-) (Methyl chloroform) - 71556 - 0.99
Trichloroethane (1,1,2-) (Vinyl trichloride) - 79005 - 0.99
Trichloroethylene - 79016 - 0.99
Trichlorophenol (2,4,5-) - 95954 - 0.96
Triethylamine - 121448 - 0.99
Trimethylpentane (2,2,4-) - 540841 - 0.99
Vinyl acetate - 108054 - 0.99
Vinyl chloride (Chloroethylene) - 75014 - 0.99
Vinylidene chloride (1,1-Dichloroethylene) - 75354 - 0.99
Xylene (m-) - 108383 - 0.99
Xylene (o-) - 95476 - 0.99
Xylene (p-) - 106423 - 0.99

v. Table 34 - Fraction Measured (Fm) and Fraction Emitted (Fe) For HAP Compounds in Wastewater Streams

Chemical name - CAS Number - Fm - Fe
Acetaldehyde - 75070 - 1.00 - 0.48
Acetonitrile - 75058 - 0.99 - 0.36
Acetophenone - 98862 - 0.31 - 0.14
Acrolein - 107028 - 1.00 - 0.43
Acrylonitrile - 107131 - 1.00 - 0.43
Allyl chloride - 107051 - 1.00 - 0.89
Benzene - 71432 - 1.00 - 0.80
Benzyl chloride - 100447 - 1.00 - 0.47
Biphenyl - 92524 - 0.86 - 0.45
Bromoform - 75252 - 1.00 - 0.49
Butadiene (1,3-) - 106990 - 1.00 - 0.98

Carbon disulfide - 75150 - 1.00 - 0.92
Carbon tetrachloride - 56235 - 1.00 - 0.94
Chlorobenzene - 108907 - 1.00 - 0.73
Chloroform - 67663 - 1.00 - 0.78
Chloroprene (2-Chloro-1,3-butadiene) - 126998 - 1.00 - 0.68
Cumene - 98828 - 1.00 - 0.88
Dichlorobenzene (p-) - 106467 - 1.00 - 0.72
Dichloroethane (1,2-) (Ethylene dichloride) - 107062 - 1.00 - 0.64
Dichloroethyl ether (Bis(2-Chloroethylether)) - 111444 - 0.76 - 0.21
Dichloropropene (1,3-) - 542756 - 1.00 - 0.76
Diethyl sulfate - 64675 - 0.0025 - 0.11
Dimethyl sulfate - 77781 - 0.086 - 0.079
Dimethylaniline (N,N-) - 121697 - 0.00080 - 0.34
Dimethylhydrazine (1,1-)57147 - 0.38 - 0.054
Dinitrophenol (2,4-) - 51285 - 0.0077 - 0.060
Dinitrotoluene (2,4-) - 121142 - 0.085 - 0.18
Dioxane (1,4-) (1,4-Diethyleneoxide) - 123911 - 0.87 - 0.18
Epichlorohydrin(1-Chloro-2,3-epoxypropane) - 106898 - 0.94 - 0.35
Ethyl acrylate - 140885 - 1.00 - 0.48
Ethylbenzene - 100414 - 1.00 - 0.83
Ethyl chloride (Chloroethane) - 75003 - 1.00 - 0.90
Ethylene dibromide (Dibromomethane) - 106934 - 1.00 - 0.57
Ethylene glycol dimethyl ether - 110714 - 0.86 - 0.32
Ethylene glycol monobutyl ether acetate - 112072 - 0.043 - 0.067
Ethylene glycol monomethyl ether acetate - 110496 - 0.093 - 0.048
Ethylene oxide - 75218 - 1.00 - 0.50
Ethylidene dichloride (1,1-Dichloroethane) - 75343 - 1.00 - 0.79
Hexachlorobenzene - 118741 - 0.97 - 0.64
Hexachlorobutadiene - 87683 - 0.88 - 0.86
Hexachloroethane - 67721 - 0.50 - 0.85
Hexane - 110543 - 1.00 - 1.00
Isophorone - 78591 - 0.51 - 0.11
Methanol - 67561 - 0.85 - 0.17
Methyl bromide (Bromomethane) - 74839 - 1.00 - 0.85
Methyl chloride (Chloromethane) - 74873 - 1.00 - 0.84
Methyl ethyl ketone (2-Butanone) - 78933 - 0.99 - 0.48
Methyl isobutyl ketone (Hexone) - 108101 - 0.98 - 0.53
Methyl methacrylate - 80626 - 1.00 - 0.37
Methyl tert-butyl ether - 16340441.00 - 0.57
Methylene chloride (Dichloromethane) - 75092 - 1.00 - 0.77
Naphthalene - 91203 - 0.99 - 0.51
Nitrobenzene - 98953 - 0.39 - 0.23
Nitropropane (2-) - 79469 - 0.99 - 0.44
Phosgene - 75445 - 1.00 - 0.87

Propionaldehyde - 123386 - 1.00 - 0.41
Propylene dichloride (1,2-Dichloropropene) - 78875 - 1.00 - 0.72
Propylene oxide - 75569 - 1.00 - 0.60
Styrene - 100425 - 1.00 - 0.80
Tetrachloromethane (1,1,2,2-) - 79345 - 1.00 - 0.46
Tetrachloroethylene (Perchloroethylene) - 127184 - 1.00 - 0.92
Toluene - 108883 - 1.00 - 0.80
Toluidine (o-) - 95534 - 0.15 - 0.052
Trichlorobenzene (1,2,4-) - 120821 - 1.00 - 0.64
Trichloroethane (1,1,1-) (Methyl chloroform) - 71556 - 1.00 - 0.91
Trichloroethane (1,1,2-) (Vinyl Trichloride) - 79005 - 1.00 - 0.60
Trichloroethylene - 79016 - 1.00 - 0.87
Trichlorophenol (2,4,5-) - 95954 - 0.11 - 0.086
Triethylamine - 121448 - 1.00 - 0.38
Trimethylpentane (2,2,4-) - 540841 - 1.00 - 1.00
Vinyl acetate - 108054 - 1.00 - 0.59
Vinyl chloride (Chloroethylene) - 75014 - 1.00 - 0.97
Vinylidene chloride (1,1-Dichloroethylene) - 75354 - 1.00 - 0.94
Xylene (m-) - 108383 - 1.00 - 0.82
Xylene (o-) - 95476 - 1.00 - 0.79
Xylene (p-) - 106423 - 1.00 - 0.82

vi. Table 35 - Control Requirements for Items of Equipment That Meet the Criteria of A.2.z

(1) Drain or drain hub
- (a) Tightly fitting solid cover (TFSC); or
- (b) TFSC with a vent to either a process, or to a fuel gas system, or to a control device meeting the requirements of A.2.r.iii; or
- (c) Water seal with submerged discharge or barrier to protect discharge from wind.

(2) Manhole - includes sumps and other points of access to a conveyance system.
- (a) TFSC; or
- (b) TSFC with a vent to either a process, or to a fuel gas system, or to a control device meeting the requirements of A.2.r.iii; or
- (c) If the item is vented to the atmosphere, use a TFSC with a properly operating water seal at the entrance or exit to the item to restrict ventilation in the collection system. The vent pipe shall be at least 90 cm in length and not exceeding 10.2 cm in nominal inside diameter.

(3) Lift station
- (a) TFSC; or

(b) TFSC with a vent to either a process, or to a fuel gas system, or to a control device meeting the requirements of A.2.r.iii; or

(c) If the lift station is vented to the atmosphere, use a TFSC with a properly operating water seal at the entrance or exit to the item to restrict ventilation in the collection system. The vent pipe shall be at least 90 cm in length and not exceeding 10.2 cm in nominal inside diameter. The lift station shall be level controlled to minimize changes in the liquid level.

(4) Trench

(a) TFSC; or

(b) TFSC with a vent to either a process, or to a fuel gas system, or to a control device meeting the requirements of A.2.r.iii; or

(c) If the item is vented to the atmosphere, use a TFSC with a properly operating water seal at the entrance or exit to the item to restrict ventilation in the collection system. The vent pipe shall be at least 90 cm in length and not exceeding 10.2 cm in nominal inside diameter.

(5) Pipe - Each pipe shall have no visible gaps in joints, seals, or other emission interfaces.

(6) Oil/Water separator

(a) Equip with a fixed roof and route vapors to a process or to a fuel gas system, or equip with a closed vent system that routes vapors to a control device meeting the requirements of A.2.r.iii; or

(b) Equip with a floating roof that meets the equipment specifications of 40 CFR 60.693 (a)(1)(i), (a)(1)(ii), (a)(2), (a)(3), and (a)(4).

(7) Tank - Applies to tanks with capacities of 38 cubic meters or greater.

(a) Maintain a fixed roof. If the tank is sparged (The liquid in the tank is agitated by injecting compressed air or gas) or used for heating or treating by means of an exothermic reaction, a fixed roof and a system shall be maintained that routes the organic HAPs vapors to other process equipment or a fuel gas system, or a closed vent system that routes vapors to a control device.

(b) A fixed roof may have openings necessary for proper venting of the tank, such as pressure/vacuum vent, j-pipe vent.

(8) Where a tightly fitting solid cover is required, it shall be maintained with no visible gaps or openings, except during periods of sampling, inspection, or maintenance.

vii. Table 36 - Compound Lists Used for Compliance Demonstrations for Enhanced Biological Treatment Processes (A.2.v.iii)

List 1
Acetonitrile
Acetophenone
Acrylonitrile
Biphenyl
Chlorobenzene
Dichloroethyl Ether
Diethyl Sulfate
Dimethyl Sulfate
Dimethyl Hydrazine 1,1
Dinitrophenol 2,4
Dinitrotoluene 2,4
Dioxane 1,4
Ethylene Glycol MonobutylEther Acetate
Ethylene Glycol MonomethylEther Acetate
Ethylene Glycol Dimethyl Ether
Hexachlorobenzene
Isophorone
Methanol
Methyl Methacrylate
Nitrobenzene
Toluidine
Trichlorobenzene 1,2,4
Trichlorophenol 2,4,6
Triethylamine

List 2
Acetaldehyde.
Acrolein.
Allyl Chloride.
Benzene.
Benzyl Chloride,
Bromoform.
Bromomethane.
Butadiene 1,3.
Carbon Disulfide.
Carbon Tetrachloride
Chloroethane (ethyl chloride).
Chloroform.
Chloroprene.
Cumene (isopropylbenzene).
Dibromoethane 1,2.
Dichlorobenzene 1,4.
Dichloroethane 1,2.

Dichloroethane 1,1 (ethylidene dichloride).
Dichloroethene 1,1 (vinylidene chloride).
Dichloropropene 1,2.
Dichloropropene 1,3.
Dimethylaniline N,N.
Epichlorohydrin.
Ethyl Acrylate.
Ethylbenzene.
Ethylene Oxide.
Ethylene Dibromide.
Hexachlorobutadiene.
Hexachloroethane.
Hexane-n.
Methyl Isobutyl Ketone.
Methyl Tertiary Butyl Ether.
Methyl Ethyl Ketone, (2-butanone).
Methyl Chloride.
Methylene Chloride (dichloromethane).
Naphthalene.
Nitropropane 2
Phosgene.
Propionaldehyde.
Propylene Oxide.
Styrene.
Tetrachloromethane 1,1,2,2.
ToluneTrichloroethane 1,1,1 (methyl chloroform).
Trichloroethane 1,1,2.
Trichloroethylene.
Trimethylpentane 2,2,4.
Vinyl Chloride.
Vinyl Acetate.
Xylene-m.
Xylene-o.
Xylene-p.

viii. Table 37 - Default Biorates for List 1 Compounds

Compound name - Biorate, K1 L/g MLVSS-hr
Acetonitrile - 0.100
Acetophenone - 0.538
Acrylonitrile - 0.750
Biphenyl - 5.643
Chlorobenzene - 10.000
Dichloroethyl ether - 0.246

Diethyl sulfate - 0.105
Dimethyl hydrazine(1,1) - 0.227
DIMethyl sulfate - 0.178
Dinitrophenol 2,4 - 0.620
Dinitrotoluene(2,4) - 0.784
Dioxane(1,4) - 0.393
Ethylene glycol dimethyl ether - 0.364
Ethylene glycol monomethyl ether acetate - 0.159
Ethylene glycol monobutyl ether acetate - 0.496
Hexachlorobenzene - 16.179
Isophorone - 0.598
Methanol - 0.200
Methyl methacrylate - 4.300
Nitrobenzene(b) - 2.300
Toluidine (-0) - 0.859
Trichlorobenzene 1,2,4 - 4.393
Trichlorophenol 2,4,5 - 4.477
Triethylamine(a) - 1.064

3. [40 CFR Part 63, Subpart H]
Organic HAP leak detection and repair program

3a. [40 CFR 63.160(a)]
The leak detection and repair program requirements specified in section A.3 apply to the following equipment which is intended to operate in organic hazardous air pollution service for greater than 300 hours per year within a source which is subject to sections A.1 or A.2: pumps, compressors, agitators, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, instrumentation systems, and control devices or closed vent systems required by this permit.

[40 CFR 63.162(a)]
Compliance with section A.3 shall be demonstrated by review of the records required by section A.3.zb and the reports required by section A.3.zc, review of performance test results, and by facility inspections.

3b. [40 CFR 63.160(e)]
Lines and equipment not containing process fluids are not considered to be subject to the provisions of A.3. Non-process lines which do not combine their materials with those in the process they serve are not considered part of the process unit.

3c. [40 CFR 63.160(b)(1) and (c)]
For equipment which is subject to the provisions of 40 CFR Part 60, Subpart VV and is also subject to section A.3 of this permit, the permittee is required only to comply with section A.3. The provisions in 40 CFR 63.1(a)(3) of Subpart A do not alter the provisions in this section.

3d. [40 CFR 63.160(c)]
For emissions units which are subject to section A.3 which have equipment which is not subject to sections A.1, A.2 and A.3 but is subject to 40 CFR Part 60, Subpart VV, the permittee may elect to apply the provisions of A.3 to all equipment in the emissions unit. Compliance with section A.3, in this manner, shall be deemed to be compliance with 40 CFR Part 60, Subpart VV.

3e. [40 CFR 63.162(c)]
Each piece of equipment which is subject to section A.3 shall be identified such that it can be distinguished from equipment that is not subject to section A.3. The equipment may be identified on a site plan, in a log, or by physical tagging with weatherproof identification.

3f. [40 CFR 63.162(d)]
Equipment that is in vacuum service is excluded from the requirements of section A.3.

3g. [40 CFR 63.162(e)]
Equipment that is in organic HAP service less than 300 hours per year is excluded from the requirements of section A.3 if it is identified as required in section A.3.zb.vii.

3h. i. [40 CFR 63.162(f)]
When a leak is detected as specified in A.3.j, A.3.o, A.3.p, A.3.s, and A.3.u:

(1) [40 CFR 63.162(f)(1)]
the permittee shall mark the equipment with a readily visible weatherproof identification including the equipment number;

(2) [40 CFR 63.162(f)(2)]
the permittee may remove the identification on a valve after it has been monitored in accordance with section A.3.o.v and no leak has been detected during the follow up monitoring. If the permittee elects to comply with A.3.u.iii.(1), the identification may be removed after the connector has been monitored in accordance with section A.3.u.iii.(1); and

(3) [40 CFR 63.162(f)(3)]
the identification on equipment which was determined to have a leak may be removed after it has been repaired except for a valve or connector which is subject to the provisions of A.3.u.iii.(1).

3h. ii. [40 CFR 63.162(g)]
Except as provided in section A.3.h.ii.(1), all terms in section A.3 that define a period of time for completion of required tasks (e.g., weekly, monthly, quarterly, annual), refer to the standard calendar periods unless specified otherwise in the section or subsection that imposes the requirement.

(1) [40 CFR 63.162(g)(1)]
If the initial compliance date does not coincide with the beginning of the standard calendar period, the permittee may elect to utilize a period beginning on the compliance date, or may elect to comply in accordance with the provisions of sections A.3.h.ii.(2).

(2) [40 CFR 63.162(g)(3)]
Except as provided in section A.3.h.ii.(1), where the period specified for compliance is a standard calendar period, if the initial compliance date does not coincide with the beginning of the calendar period, compliance shall be required according to the schedule specified in (a) or (b) below, as appropriate.

(a) [40 CFR 63.162(g)(3)(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

(b) [40 CFR 63.162(g)(3)(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) [40 CFR 63.162(g)(4)]
In all instances where a provision of section A.3 requires completion of a task during each of multiple successive periods, the permittee may perform the required task at any time during each period, provided the task is conducted at a reasonable interval after completion of the task during the previous period.

3i. [40 CFR 63.162(h)]
In all cases where the provisions of A.3 require the permittee to repair leaks by a specified time after the leak is detected, it is a violation of section A.3 to fail to take action to repair the leaks within the specified time. If action is taken to repair the leaks within the specified time, failure of that action to successfully repair the leak is not a violation of section A.3. However, if the repairs are unsuccessful, a leak is detected and the permittee shall take further action as required by applicable provisions of section A.3.

3j. [40 CFR 63.163]
Pumps in Light Liquid Service

i [40 CFR 63.163(a), (a)(1)]
The provisions of this section apply to each pump that is in light liquid service. The provisions are to be implemented on the dates specified in section A.1 in the phases specified below:

(1) [40 CFR 63.163(a)(1)(i)]
For each group of existing process units at existing sources:

(a) Phase I, beginning on the compliance date;

(b) Phase II, beginning no later than 1 year after the compliance date; and

(c) Phase III, beginning no later than 2 years after the compliance date.

(2) [40 CFR 63.163(a)(1)(ii)]
For new sources:

(a) After initial start-up, comply with the Phase II requirements; and

(b) Beginning no later than 1 year after initial start-up, comply with the Phase III requirements.

ii. [40 CFR 63.163(b)(1)]
The permittee shall monitor each pump monthly to detect leaks by the method specified in A.3.za.ii and shall comply with the requirements of sections A.3.j.i through A.3.j.vi, except as provided in sections A.3.j.vii through A.3.j.xi.

(1) [40 CFR 63.163(b)(2)]
The instrument reading, as determined by the method as specified in A.3.za.ii, that defines a leak in each phase of the standard is:

(a) For Phase I, and instrument reading of 10,000 parts per million or greater.

(b) For Phase II, an instrument reading of 5,000 parts per million or greater.

(c) For Phase III, an instrument reading of:

(i) 5,000 parts per million or greater for pumps handling polymerizing monomers; and

(ii) 1,000 parts per million or greater for all other pumps.

(2) [40 CFR 63.163(b)(3)]
Each calendar week the permittee shall visually inspect each pump for indications of liquids dripping from the pump seal. If any indications of liquid dripping from the seal are present then a leak is detected.

iii. [40 CFR 63.163(c), (c)(1), (c)(2), & (c)(3)]
When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided below or in section A.3.r. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. First attempts at repair include, but are not limited to, the following practices where practicable: tightening of packing gland nuts; and ensuring that the seal flush is operating at design pressure and temperature. For pumps in Phase III to which a 1,000 parts per million leak definition applies, repair is not required unless an instrument reading of 2,000 parts per million or greater is detected.

iv. [40 CFR 63.163(d)(1)]
In accordance with the HON Implementation Plan, the permittee has elected to calculate pumps on a process unit basis.

v. [40 CFR 63.163(d)(2)]
The permittee shall implement a quality improvement program if the number of pumps which leak, as calculated on a 6-month rolling average, are the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit.

vi. [40 CFR 63.163(d)(3)]
The number of pumps at a process unit shall be the sum of all the pumps in organic HAP service, except that pumps found leaking in a continuous process unit within 1 month after start-up of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only.

[40 CFR 63.163(d)(4)]
Percent leaking pumps shall be determined by the following equation:
%PL = ((PL-PS)/(PT-PS))x100
where:
%PL = Percent leaking pumps
PL = Number of pumps found leaking as determined through monthly monitoring as required in A.3.j.i.
PT = Total pumps in organic HAP service, including those meeting the criteria in A.3.j.viii and A.3.j.viii.
PS = Number of pumps leaking within 1 month of start-up during the current monitoring period.

vii. [40 CFR 63.163(e)]
Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of section A.3, provided the requirements of A.3.j.vii.(1) through A.3.j.vii.(6) are met.

(1) [40 CFR 63.163(e)(1)]
Each dual mechanical seal system is either:

(a) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(b) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with A.3.s; or

(c) Equipped with a closed-loop system that purges the barrier fluid into a process stream.

(2) [40 CFR 63.163(e)(2)]
The barrier fluid is not in light liquid service.

(3) [40 CFR 63.163(e)(3)]
Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4) [40 CFR 63.163(e)(4), (e)(4)(i), & (e)(4)(ii)]
Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the pump shall be monitored as specified in section A.3.za.ii to determine if there is a leak of organic HAP in the barrier fluid. If an instrument reading of 1,000 parts per million or greater is measured, a leak is detected.

(5) [40 CFR 63.163(e)(5)]
Each sensor as described in A.3.j.vii.(3) is observed daily or is equipped with an alarm.

(6) [40 CFR 63.163(e)(6)(i), (e)(6)(ii), (e)(6)(iii), & (e)(6)(iv)]
The permittee determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both. If indications of liquids dripping from the pump seal exceed the criteria established by the permittee, or if, based on the criteria established by the permittee, the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected. When a leak is detected, it shall be repaired as soon as practicable,

but not later than 15 calendar days after it is detected, except as provided in A.3.r. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

viii. [40 CFR 63.163(f)]
Any pump that is designed with no externally actuated shaft penetrating the pump housing is exempt from the requirements of A.3.j.i, A.3.j.ii, and A.3.j.iii.

ix. [40 CFR 63.163(g)]
Any pump equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals back to the process or to a control device that complies with the requirements of A.3.s is exempt from the requirements of A.3.j.ii through A.3.j.vii.

x. [40 CFR 63.163(i)]
If more than 90 percent of the pumps at a process unit meet the criteria in either A.3.j.vii or A.3.j.viii, the process unit is exempt from the requirements of A.3.j.iv through A.3.j.vi.

xi. [40 CFR 63.163(j)]
Any pump that is designated, as described in A.3.zb.ii.(7), as an unsafe-to-monitor pump is exempt from the requirements of A.3.j.ii through A.3.j.vii if:

(1) [40 CFR 63.163(j)(1)]
the permittee determines that the pump is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with A.3.j.ii through A.3.j.vii; and

(2) [40 CFR 63.163(j)(2)]
the permittee has a written plan that requires monitoring of the pump as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable.

3k. [40 CFR 63.164]
The permittee has no compressors in gas/vapor service or light liquid service at the time of permit issuance.

3l. [40 CFR 63.165]
Pressure relief devices in gas/vapor service

i [40 CFR 63.165(a)]
Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with an instrument reading of less than 500 parts per million above background, as measured by the method specified in A.3.za.iii except as provided in A.3.l.ii.

ii. [40 CFR 63.165(b)(1) & (b)(2)]
After each pressure release, the pressure relief device shall be returned to a condition indicated by an instrument reading of less than 500 parts per million above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in A.3.r. No later than 5 calendar days after the pressure release and being returned to organic HAP service, the pressure relief device shall be monitored to confirm the condition indicated by an instrument reading of less than 500 parts per million above background, as measured by the method specified in A.3.za.iii.

iii. [40 CFR 63.165(c)]
Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in A.3.s of this permit is exempt from the requirements of A.3.l.i and A.3.l.ii.

iv. [40 CFR 63.165(d)(1) & (d)(2)]
Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of A.3.l.i and A.3.l.ii, provided that after each pressure release, the rupture disk located upstream of the pressure relief device shall be replaced as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in A.3.r.

3m. [40 CFR 63.166]
Sampling connection systems

i [40 CFR 63.166(a)]
The permittee shall equip each sampling connection system with a closed-purge, closed-loop, or closed-vent system. Gases displaced during filling of the sample container are not required to be collected or captured.

ii. [40 CFR 63.166(b)]
Each closed-purge, closed-loop, or closed-vent system shall:

(1) [40 CFR 63.166(b)(1)]
return the purged process fluid directly to the process line; or

(2) [40 CFR 63.166(b)(2)]
collect and recycle the purged process fluid to a process; or

(3) [40 CFR 63.166(b)(3)]
be designed and operated to capture and transport the purged process fluid to a control device that complies with the requirements of A.3.s. of this permit; or

(4) [40 CFR 63.166(b)(4)]
collect, store, and transport the purged process fluid to a system or facility identified below:

(a) a waste management unit which is subject to and operated in compliance with the provisions of A.2 applicable to group 1 wastewater streams. If the purged process fluid does not contain any organic HAP listed in Table 9 of A.2.zc, the waste management unit need not be subject to, and operated in compliance with the requirements of A.2 applicable to group 1 wastewater streams provided the facility has an NPDES permit or sends the wastewater to an NPDES permitted facility.

(b) a treatment, storage, or disposal facility subject to regulation under 40 CFR Part 262, 264, 265, or 266; or

(c) a facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR Part 261.

iii. [40 CFR 63.166(c)]
In-situ sampling systems and sampling systems without purges are exempt from the requirements of A.3.m.i and A.3.m.ii.

3n. [40 CFR 63.167]
The provisions of this section apply to open-ended valves or lines.

i [40 CFR 63.167(a)(1) & (a)(2)]
Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in A.3.n.iv and A.3.n.v. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair.

ii. [40 CFR 63.167(b)]
Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

iii. [40 CFR 63.167(c)]
When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with A.3.n.i at all other times.

iv. [40 CFR 63.167(d)]
Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of A.3.n.i through A.3.n.iii.

v. [40 CFR 63.167(e)]
Open-ended valves or lines containing materials which would autocatalytically polymerize or, would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in A.3.n.i through A.3.n.iii are exempt from the requirements of A.3.n.i through A.3.n.iii.

3o. [40 CFR 63.168]
The provisions of this section apply to valves that are either in gas service or in light liquid service.

i [40 CFR 63.168(a) & (a)(1)]
The provisions of this section apply to valves that are either in gas service or in light liquid service. The provisions are to be implemented on the dates set forth in section A.1 as specified in section A.3.o.i.(1) or A.3.o.i.(2).

(1) [40 CFR 63.168(a)(1)(i)]
For each group of existing process units at existing sources subject to the provisions of section A.1, the phases of the standard are:

(a) For Phase I, beginning on the compliance date;

(b) Phase II, beginning no later than 1 year after the compliance date; and

(c) Phase III, beginning no later than 2 years after the compliance date.

(2) [40 CFR 63.168(a)(1)(ii)]
For new sources subject to section A.1, the applicable phases of the standard are:

(a) After initial start-up, comply with the Phase II requirements; and

(b) Beginning no later than 1 year after initial start-up, comply with the Phase III requirements.

(3) [40 CFR 63.168(a)(3)]
The use of monitoring data generated before April 22, 1994 to qualify for less frequent monitoring is governed by the provisions of A.3.za.ii.(6).

ii. [40 CFR 63.168(b)]
The permittee of a source subject to A.3 shall monitor all valves, except as provided in A.3.o.vii and A.3.o.viii, at the intervals specified in A.3.o.iii and shall comply with all other provisions of section A.3, except as provided in A.3.r.

(1) [40 CFR 63.168(b)(1)]
The valves shall be monitored to detect leaks by the method specified in A.3.za.ii.

(2) [40 CFR 63.168(b)(2)]
The instrument reading that defines a leak is an instrument reading of 500 parts per million or greater.

(3) [40 CFR 63.168(b)(3)]
The instrument reading that defines a leak in each phase of the standard is:

(a) For Phase I, an instrument reading of 10,000 parts per million or greater.

(b) For Phase II, an instrument reading of 500 parts per million or greater.

(c) For Phase III, an instrument reading of 500 parts per million or greater.

iii. [40 CFR 63.168(c) & (d)]
For new sources subject to A.3 each valve shall be monitored quarterly for the first four quarters after initial start-up. For existing sources and for new sources which have been in operation for greater than one year, the permittee shall monitor valves for leaks at the intervals specified in (1) through (4) below:

(1) at process units with 2 percent or greater leaking valves, calculated according to A.3.o.iv, the permittee shall monitor each valve once per month;

(2) at process units with less than 2 percent leaking valves, calculated according to A.3.o.iv, the permittee shall monitor each valve once each quarter;

(3) at process units with less than 1 percent leaking valves, calculated according to A.3.o.iv, the permittee may elect to monitor each valve once every 2 quarters;

(4) at process units with less than 0.5 percent leaking valves, calculated according to A.3.o.iv, the permittee may elect to monitor each valve once every 4 quarters.

iv. [40 CFR 63.168(e)(1)]
Percent leaking valves at a process unit shall be determined by the following equation:
$\%VL = (VL/(VT+VC))x100$
where:

%VL= Percent leaking valves as determined through periodic monitoring required in A.3.o.i through A.3.o.iii.
VL = Number of valves found leaking excluding non-repairables as provided in A.3.o.iv.(2).
VT = Total valves monitored, in a monitoring period excluding valves monitored as required by A.3.o.v.
VC = Optional credit for removed valves=0.67 x net number (i.e., total removed-total added) of valves in organic HAP service removed from the process unit after the date set forth in A.1.h.iii for existing process units, and after the date of initial start-up for new sources. If credits are not taken, then VC=0.

(1) [40 CFR 63.168(e)(2)]
For use in determining monitoring frequency, the percent leaking valves shall be calculated as a rolling average of two consecutive monitoring periods for monthly, quarterly, or semiannual monitoring programs; and as an average of any three out of four consecutive monitoring periods for annual monitoring programs.

(2) [40 CFR 63.168(e)(3)(i) & (e)(3)(ii)]
Non-repairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and non-repairable. Otherwise, a number of nonrepairable valves (identified and included in the percent leaking calculation in a previous period) up to a maximum of 1 percent of the total number of valves in organic HAP service at a process unit may be excluded from calculation of percent leaking valves for subsequent monitoring periods. If the number of nonrepairable valves exceeds 1 percent of the total number of valves in organic HAP service at a process unit, the number of nonrepairable valves exceeding 1 percent of the total number of valves in organic HAP service shall be included in the calculation of percent leaking valves.

v. [40 CFR 63.168(f)(1), (f)(2), & (f)(3)]
When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in A.3.r. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. When a leak has been repaired, the valve shall be monitored as specified in A.3.za.ii and A.3.za.iii at least once within the first 3 months after its repair.

(1) [40 CFR 63.168(f)(3)(i)]
The monitoring shall be conducted as specified in A.3.za.ii and A.3.za.iii, as appropriate, to determine whether the valve has resumed leaking.

(2) [40 CFR 63.168(f)(3)(ii)]
Periodic monitoring required by A.3.o.ii and A.3.o.iii may be used to satisfy the requirements of this section, if the timing of the monitoring period coincides with the time specified in this section. Alternatively, other monitoring may be

performed to satisfy the requirements of this section, regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in this section.

(3) [40 CFR 63.168(f)(3)(iii)]
If a leak is detected by monitoring that is conducted pursuant to this section, the permittee shall follow the provisions of (a) and (b) below, to determine whether that valve must be counted as a leaking valve for purposes of A.3.o.iv.

(a) If the permittee elected to use periodic monitoring required by A.3.o.i through A.3.o.iii to satisfy the requirements of A.3.o.v, then the valve shall be counted as a leaking valve.

(b) If the permittee elected to use other monitoring, prior to the periodic monitoring required by A.3.o.i through A.3.o.iii, to satisfy the requirements of A.3.o.v, then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking.

vi. [40 CFR 63.168(g), (g)(1) through (g)(4)]
First attempts at repair include, but are not limited to tightening of bonnet bolts, replacement of bonnet bolts, tightening of packing gland nuts, and injection of lubricant into lubricated packing.

vii. [40 CFR 63.168(h)]
Any valve that is designated, as described in A.3.zb.ii.(7)(a), as an unsafe-to-monitor valve is exempt from the requirements of A.3.o.ii through A.3.o.v if:

(1) the permittee of the valve determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with A.3.o.i through A.3.o.iii; and

(2) the permittee of the valve has a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable.

viii. [40 CFR 63.168(i)]
Any valve that is designated, as described in A.3.zb.ii.(7)(b), as a difficult-to-monitor valve is exempt from the requirements of A.3.o.ii through A.3.o.iii if:

(1) the permittee of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface or it is not accessible at anytime in a safe manner;

(2) the emissions unit within which the valve is located is an existing source or the permittee designates less than 3 percent of the total number of valves in a new source as difficult-to-monitor; and

(3) the permittee of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

3p. [40 CFR 63.169]
Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service

i [40 CFR 63.169(a)]
Pumps, valves, connectors, and agitators in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and instrumentation systems shall be monitored within 5 calendar days by the method specified in A.3.za.ii if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method. If such a potential leak is repaired as required in A.3.p.iii and A.3.p.iv, it is not necessary to monitor the system for leaks by the method specified in A.3.za.ii.

ii. [40 CFR 63.169(b)]
If an instrument reading of 10,000 parts per million or greater for agitators, 5,000 parts per million or greater for pumps handling polymerizing monomers, 2,000 parts per million or greater for pumps subject to the 1,000 ppm leak definition in A.3.j.i, or 500 parts per million or greater for valves, connectors, instrumentation systems, and pressure relief devices is measured, a leak is detected.

iii. [40 CFR 63.169(c)]
When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in A.3.r. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. For equipment identified in A.3.p.i that is not monitored by the method specified in A.3.za.ii, repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere 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.

iv. [40 CFR 63.169(d)]
First attempts at repair include, but are not limited to, the practices described under A.3.j.iii and A.3.o.vi, for pumps and valves, respectively.

3q. [40 CFR 63.170, Table 2, and Table 3]
Each surge control vessel or bottoms receiver that is not routed back to the process and that meets a condition specified in A.3.q.i through A.3.q.iv below shall be equipped with a closed-vent system that routes the organic vapors vented from the surge control vessel or bottoms

receiver back to the process or to a control device that complies with the requirements in A.3.s; or shall be equipped with a fixed roof and an internal floating roof or an external floating roof.

i surge control vessels and bottom receivers at existing sources with a capacity equal to or greater than 75 cubic meters but less than 151 cubic meters with a vapor pressure equal to or greater than 13.1 kilopascals,

ii. surge control vessels and bottom receivers at existing sources with a capacity equal to or greater than 151 cubic meters with a vapor pressure equal to or greater than 5.2 kilopascals,

iii. surge control vessels and bottom receivers at new sources with a capacity equal to or greater than 38 cubic meters but less than 151 cubic meters with a vapor pressure equal to or greater than 13.1 kilopascals, or

iv. surge control vessels and bottom receivers at new sources with a capacity equal to or greater than 151 cubic meters with a vapor pressure equal to or greater than 0.7 kilopascals.

3r. [40 CFR 63.171]
Delay of repair

i [40 CFR 63.171(a)]
Delay of repair of equipment for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown. Repair of this equipment shall occur by the end of the next process unit shutdown.

ii. [40 CFR 63.171(b)]
Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in organic HAP service.

iii. [40 CFR 63.171(c)]
Delay of repair for valves, connectors, and agitators is also allowed if:

(1) the permittee determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and

(2) when repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with A.3.s.

iv. [40 CFR 63.171(d)]
Delay of repair for pumps is also allowed if:

(1) repair requires replacing the existing seal design with a dual mechanical seal system that meets the requirements of A.3.j.vii, a pump that meets the requirements of A.3.j.viii, or a closed-vent system and control device that meets the requirements of A.3.j.ix; and

(2) repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

v. [40 CFR 63.171(e)]
Delay of repair beyond a process unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit shutdown will not be allowed unless the third process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

3s. [40 CFR 63.172]
Closed-vent systems and control devices

i [40 CFR 63.172(a)]
The permittee of closed-vent systems and control devices used to comply with provisions of section A.3 shall comply with the provisions of A.3.s.

ii. [40 CFR 63.172(b)]
Recovery or recapture devices (e.g., condensers and absorbers) shall be designed and operated to recover the organic HAP emissions or volatile organic compounds emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.

iii. [40 CFR 63.172(c)]
Enclosed combustion devices shall be designed and operated to reduce the organic HAP emissions or volatile organic compounds emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent, or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 C.

iv. [40 CFR 63.172(e)]
The permittee shall monitor the control devices to ensure that they are operated and maintained in conformance with their design for control devices that are used to comply with the provisions of section A.3. The intent of this provision is to ensure proper operation and maintenance of the control device.

v. (1) [40 CFR 63.172(f)]
Except as provided in A.3.s.ix and A.3.s.x, each closed-vent system shall be inspected according to the procedures and schedule specified in (a) or (b) below:

(a) if the closed-vent system is constructed of hard-piping, the permittee shall conduct an initial inspection according to the procedures specified in A.3.za.ii and conduct annual visual inspections for visible, audible, or olfactory indications of leaks; or

(b) if the vapor collection system or closed-vent system is constructed of duct work, the permittee shall conduct an initial inspection and annual inspections according to the procedures specified in A.3.za.ii.

(2) [40 CFR 63.172(g)]
Each closed-vent system shall be inspected according to the procedures in section A.3.za.ii.

vi. [40 CFR 63.172(h), (h)(1), & (h)(2)]
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. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected, except as provided in A.3.s.vii.

vii. [40 CFR 63.172(i)]
Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the 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 process unit shutdown.

viii. [40 CFR 63.172(j)]
For each 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 the provisions of either (1) or (2) below, except as provided in (3) below.

(1) Install, set or adjust, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in A.2.h. The flow indicator shall be installed at the entrance to any bypass line.

(2) Secure the bypass line 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 the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line.

(3) 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 section.

ix. [40 CFR 63.172(k)]
Any parts of the closed-vent system that are designated, as described in A.3.zb.ii.(7)(a), as unsafe to inspect are exempt from the inspection requirements of A.3.s.v if:

(1) 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.3.s.v; and

(2) the permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times, but not more frequently than annually.

x. [40 CFR 63.172(l), (l)(1), & (l)(2)]
Any parts of the closed-vent system that are designated, as described in A.3.zb.ii.(7)(a), as difficult to inspect are exempt from the inspection requirements of A.3.s.v if the permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface and the permittee has a written plan that requires inspection of the equipment at least once every 5 years.

xi. [40 CFR 63.172(m)]
Whenever organic HAP emissions are vented to a closed-vent system or control device used to comply with the provisions of A.3, such system or control device shall be operating.

xii. [40 CFR 63.172(n)]
The permittee of any control device subject to A.3 that is also subject to monitoring, record keeping, and reporting requirements in 40 CFR Part 264, Subpart BB, or is subject to monitoring and record keeping requirements in 40 CFR Part 265, Subpart BB, may elect to comply either with the monitoring, record keeping, and reporting requirements of A.3, or with the monitoring, record keeping, and reporting requirements in 40 CFR Parts 264 and/or 265, which shall constitute compliance with the monitoring, record keeping and reporting requirements of A.3. The permittee shall identify which option has been chosen, in the next Periodic Report required by A.3.zc.iv.

3t. [40 CFR 63.173]
The permittee has no agitators in gas/vapor service or light liquid service at the time of permit issuance.

3u. [40 CFR 63.174]
Connectors in gas/vapor service and in light liquid service

i [40 CFR 63.174(a), (a)(1), & (a)(2)]
The permittee shall monitor all connectors in gas/vapor and light liquid service, except as provided in A.3.u.vi through A.3.u.viii, at the intervals specified in A.3.u.ii. The connectors shall be monitored to detect leaks by the method specified in A.3.za.ii. If an instrument reading greater than or equal to 500 parts per million is measured, a leak is detected.

ii. [40 CFR 63.174(b)]
The permittee shall monitor for leaks at the intervals specified in either (1) or (2) below:

(1) [40 CFR 63.174(b)(2)]
For new sources, within the first 12 months after initial start-up, the permittee shall monitor all connectors as an initial survey, except as provided in A.3.u.vi through A.3.u.viii.

(2) [40 CFR 63.174(b)(3)]
After conducting the initial survey required in A.3.u.ii.(1), the permittee shall perform all subsequent monitoring of connectors at the frequencies specified in (a) through (e) below, except as provided in A.3.u.iii.(2):

(a) Once per year (i.e., 12-month period), if the percent leaking connectors in the process unit was 0.5 percent or greater during the last required annual or biennial monitoring period.

(b) Once every 2 years, if the percent leaking connectors was less than 0.5 percent during the last required monitoring period. The permittee may comply with this section by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The percent leaking connectors will be calculated for the total of all monitoring performed during the 2-year period.

(c) If the permittee of a process unit in a biennial leak detection and repair program calculates less than 0.5 percent leaking connectors from the 2-year monitoring period, the permittee may monitor the connectors one time every 4 years. The permittee may comply with the requirements of this section by monitoring at least 20 percent of the connectors each year until all connectors have been monitored within 4 years.

(d) If a process unit complying with the requirements of A.3.u.ii using a 4-year monitoring interval program has greater than or equal to 0.5 percent but less than 1 percent leaking connectors, the permittee shall increase the

monitoring frequency to one time every 2 years. The permittee may comply with the requirements of this section by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The permittee may again elect to use the provisions of A.3.u.ii.(3)(c) when the percent leaking connectors decreases to less than 0.5 percent.

(e) If a process unit complying with requirements of A.3.u.ii.(3)(c) using a 4-year monitoring interval program has 1 percent or greater leaking connectors, the permittee shall increase the monitoring frequency to one time per year. The permittee may again elect to use the provisions of A.3.u.ii.(3)(c) when the percent leaking connectors decreases to less than 0.5 percent.

(3) [40 CFR 63.174(b)(4)]
The use of monitoring data generated before April 22, 1994 to qualify for less frequent monitoring is governed by the provisions of A.3.za.ii.(6).

iii. For each connector that has been opened or has otherwise had the seal broken:

(1) [40 CFR 63.174(c)(1)(i)]
Except as provided in A.3.u.iii.(2) below, each connector that has been opened or has otherwise had the seal broken shall be monitored for leaks when it is reconnected or within the first 3 months after being returned to organic HAPs service. If the monitoring detects a leak, it shall be repaired according to the provisions of A.3.u.iv, unless it is determined to be nonrepairable, in which case it is counted as a nonrepairable connector for the purposes of A.3.u.ix.

(2) [40 CFR 63.174(c)(1)(ii)]
As an alternative to the requirements in A.3.u.iii.(1), the permittee may choose not to monitor connectors that have been opened or otherwise had the seal broken. In this case, the permittee may not count nonrepairable connectors for the purposes of A.3.u.viii.(2). The permittee shall calculate the percent leaking connectors for the monitoring periods described in A.3.u.ii, by setting the nonrepairable component, CAN, in the equation in A.3.u.v.iii.(2) to zero for all monitoring periods.

(3) [40 CFR 63.174(c)(iii)]
The permittee may switch alternatives described in A.3.u.iii.(1) and A.3.u.iii.(2) at the end of the current monitoring period he is in, provided that it is reported as required in A.3.zc and begin the new alternative in annual monitoring. The initial monitoring in the new alternative shall be completed no later than 12 months after reporting the switch.

(4) [40 CFR 63.174(c)(2)]
As an alternative to the requirements of A.3.u.ii.(2), each screwed connector 2 inches or less in nominal inside diameter installed in a process unit before April 22, 1994 may:

(a) [40 CFR 63.174(c)(2)(i)]
comply with the requirements of A.3.p, and

(b) [40 CFR 63.174(c)(2)(ii)]
be monitored for leaks within the first 3 months after being returned to organic HAPs service after having been opened or otherwise had the seal broken. If that monitoring detects a leak, it shall be repaired according to the provisions of A.3.u.iv.

(c) [40 CFR 63.174(c)(2)(iv)]
The provisions of section A.3.u.iii.(4) apply to screwed connectors installed before 12/31/92.

iv. [40 CFR 63.174(d)]
When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in A.3.u.vi and in A.3.r. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

v. [40 CFR 63.174(f)]
Any connector that is designated, as described in A.3.zb.ii.(7)(a), as an unsafe-to-monitor connector is exempt from the requirements of A.3.u.i if:

(1) the permittee determines that the connector is unsafe to monitor because personnel would be exposed to an immediate danger as a result of complying with A.3.u.i through A.3.u.iv; and

(2) the permittee has a written plan that requires monitoring of the connector as frequently as practicable during safe to monitor periods, but not more frequently than the periodic schedule otherwise applicable.

vi. [40 CFR 63.174(g)]
Any connector that is designated, as described in A.3.zc.ii.(7)(b), as an unsafe-to-repair connector is exempt from the requirements of A.3.u.i and A.3.u.iv if:

(1) the permittee determines that repair personnel would be exposed to an immediate danger as a consequence of complying with A.3.u.iv; and

(2) the connector will be repaired before the end of the next scheduled process unit shutdown.

vii. Any connector that is inaccessible or is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of A.3.u.i and A.3.u.iii and from the record keeping and reporting requirements of A.3.zb and A.3.zc.

(1) [40 CFR 63.174(h)(1)]
An inaccessible connector is one that is:

(a) buried;

(b) insulated in a manner that prevents access to the connector by a monitor probe;

(c) obstructed by equipment or piping that prevents access to the connector by a monitor probe;

(d) unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold which would allow access to connectors up to 7.6 meters (25 feet) above the ground;

(e) inaccessible because it would require elevating the monitoring personnel more than 2 meters above a permanent support surface or would require the erection of scaffold; or

(f) not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment.

(2) [40 CFR 63.174(h)(2) & (h)(3)]
If any inaccessible or ceramic or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the leak shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in A.3.r and A.3.u.vi. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

viii. [40 CFR 63.174(i)]
For use in determining the monitoring frequency, as specified in A.3.u.ii, the percent leaking connectors shall be calculated as specified in (1) and (2) below:

(1) [40 CFR 63.174(i)(1)]
For the first monitoring period, use the following equation:
$\% CL = CL/(Ct + CC) \times 100$

where:
% CL = Percent leaking connectors as determined through periodic monitoring required in A.3.u.i and A.3.u.ii.
CL = Number of connectors measured at 500 parts per million or greater, by the method specified in A.3.za.ii.
Ct = Total number of monitored connectors in the process unit.
CC = Optional credit for removed connectors = 0.67 x net (i.e., total removed-total added) number of connectors in organic HAPs service removed from the process unit after the compliance date set forth in the applicable subpart for existing process units, and after the date of initial start-up for new process units. If credits are not taken, then CC = 0.

(2) [40 CFR 63.174(i)(2)]
For subsequent monitoring periods, use the following equation:
% CL = [(CL - CAN)/(Ct + CC)] x 100
where:
% CL = Percent leaking connectors as determined through periodic monitoring required in A.3.u.i and A.3.u.ii.
CL = Number of connectors, including nonrepairables, measured at 500 parts per million or greater, by the method specified in A.3.za.ii.
CAN = Number of allowable nonrepairable connectors, as determined by monitoring required in A.3.u.ii.(2) and A.3.u.iii, not to exceed 2 percent of the total connector population, Ct.
Ct = Total number of monitored connectors, including nonrepairables, in the process unit.
CC = Optional credit for removed connectors = 0.67 x net number (i.e., total removed-total added) of connectors in organic HAPs service removed from the process unit after the compliance date set forth in the applicable subpart for existing process units, and after the date of initial start-up for new process units. If credits are not taken, then CC = 0.

ix. [40 CFR 63.174(j)]
Optional credit for removed connectors. If the permittee eliminates a connector subject to monitoring under A.3.u.ii, the permittee may receive credit for elimination of the connector, as described in A.3.u.viii, provided the requirements in (1) through (4) below are met.

(1) The connector was welded after 12/31/92.

(2) The integrity of the weld is demonstrated by monitoring it according to the procedures in A.3.za.ii or by testing using X-ray, acoustic monitoring, hydrotesting, or other applicable method.

(3) Welds created after 12/31/92 but before 4/22/94 are monitored or tested by 3 months after the compliance date specified in the applicable subpart.

(4) Welds created after 4/22/94 are monitored or tested within 3 months after being welded.

(5) If an inadequate weld is found or the connector is not welded completely around the circumference, the connector is not considered a welded connector and is therefore not exempt from the provisions of A.3.

3v. [40 CFR 63.175]
The permittee did not elect to comply with the alternative quality improvement programs for valves.

3w. [40 CFR 63.176]
Quality Improvement Plan for Pumps

i [40 CFR 63.176(a)]
In Phase III, if, on a 6-month rolling average, the greater of either 10 percent of the pumps in a process unit (or plant site) or three pumps in a process unit (or plant site) leak, the permittee shall comply with the requirements of this section as specified below:

(1) Pumps that are in polymerizing monomer service shall comply with all requirements except for those specified in section A.3.v.iv.(8).

(2) Pumps that are not in polymerizing monomer service shall comply with all requirements of this section.

ii. [40 CFR 63.176(b)]
The permittee shall comply with the requirements of this section until the number of leaking pumps is less than the greater of either 10 percent of the pumps or three pumps, calculated as a 6-month rolling average, in the process unit (or plant site). Once the performance level is achieved, the permittee shall comply with the requirements in A.3.j.

iii. [40 CFR 63.176(c)]
If in a subsequent monitoring period, the process unit (or plant site) has greater than 10 percent of the pumps leaking or three pumps leaking (calculated as a 6-month rolling average), the permittee shall resume the quality improvement program starting at performance trials.

iv. [40 CFR 63.176(d)]
The quality improvement program shall include the following:

(1) [40 CFR 63.176(d)(1)]
The permittee shall comply with the requirements in A.3.j.

(2) [40 CFR 63.176(d)(2)]
The permittee shall collect the following data, and maintain records as required in A.3.zb.viii.(1), for each pump in each process unit (or plant site) subject to the quality improvement program. The data shall be collected and the records shall be maintained on a process unit basis.

(a) Pump type (e.g., piston, horizontal or vertical centrifugal, gear, bellows); pump manufacturer; seal type and manufacturer; pump design (e.g., external shaft, flanged body); materials of construction; if applicable, barrier fluid or packing material; and year installed.

(b) Service characteristics of the stream such as discharge pressure, temperature, flow rate, corrosivity, and annual operating hours.

(c) The maximum instrument readings observed in each monitoring observation before repair, response factor for the stream if appropriate, instrument model number, and date of the observation.

(d) If a leak is detected, the repair methods used and the instrument readings after repair.

(e) If the data will be analyzed as part of a larger analysis program involving data from other plants or other types of process units, a description of any maintenance or quality assurance programs used in the process unit that are intended to improve emission performance.

(3) The permittee shall continue to collect data on the pumps as long as the process unit (or plant site) remains in the quality improvement program.

(4) The permittee shall inspect all pumps or pump seals which exhibited frequent seal failures and were removed from the process unit due to leaks. The inspection shall determine the probable cause of the pump seal failure or of the pump leak and shall include recommendations, as appropriate, for design changes or changes in specifications to reduce leak potential.

(5) (a) The permittee shall analyze the data collected to comply with the requirements of A.3.w.iv.(2) to determine the services, operating or maintenance practices, and pump or pump seal designs or technologies that have poorer than average emission performance and those that have better than average emission performance. The analysis shall determine if specific trouble areas can be identified on the basis of service, operating

conditions or maintenance practices, equipment design, or other process specific factors.

(b) The analysis shall also be used to determine if there are superior performing pump or pump seal technologies that are applicable to the service(s), operating conditions, or pump or pump seal designs associated with poorer than average emission performance. A superior performing pump or pump seal technology is one with a leak frequency of less than 10 percent for specific applications in the process unit or plant site. A candidate superior performing pump or pump seal technology is one demonstrated or reported in the available literature or through a group study as having low emission performance and as being capable of achieving less than 10 percent leaking pumps in the process unit.

(c) The analysis shall include consideration of:

(i) The data obtained from the inspections of pumps and pump seals removed from the process unit due to leaks;

(ii) Information from the available literature and from the experience of other plant sites that will identify pump designs or technologies and operating conditions associated with low emission performance for specific services; and

(iii) Information on limitations on the service conditions for the pump seal technology operating conditions as well as information on maintenance procedures to ensure continued low emission performance.

(d) The data analysis may be conducted through an inter- or intra-company program (or through some combination of the two approaches) and may be for a single process unit, a plant site, a company, or a group of process units.

(e) The first analysis of the data shall be completed no later than 18 months after the start of the quality improvement program. The first analysis shall be performed using a minimum of 6 months of data. An analysis of the data shall be done each year the process unit is in the quality improvement program.

(6) A trial evaluation program shall be conducted at each plant site for which the data analysis does not identify use of superior performing pump seal technology or pumps that can be applied to the areas identified as having poorer than average performance, except as provided in paragraph A.3.w.iv.(6)(e). The trial program

shall be used to evaluate the feasibility of using in the process unit (or plant site) the pump designs or seal technologies, and operating and maintenance practices that have been identified by others as having low emission performance.

(a) The trial program shall include on-line trials of pump seal technologies or pump designs and operating and maintenance practices that have been identified in the available literature or in analysis by others as having the ability to perform with leak rates below 10 percent in similar services, as having low probability of failure, or as having no external actuating mechanism in contact with the process fluid. If any of the candidate superior performing pump seal technologies or pumps is not included in the performance trials, the reasons for rejecting specific technologies from consideration shall be documented as required in A.3.zb.viii.(3)(b).

(b) The number of pump seal technologies or pumps in the trial evaluation program shall be the lesser of 1 percent or two pumps for programs involving single process units and the lesser of 1 percent or five pumps for programs involving a plant site or groups of process units. The minimum number of pumps or pump seal technologies in a trial program shall be one.

(c) The trial evaluation program shall specify and include documentation of:

(i) The candidate superior performing pump seal designs or technologies to be evaluated, the stages for evaluating the identified candidate pump designs or pump seal technologies, including the time period necessary to test the applicability;

(ii) The frequency of monitoring or inspection of the equipment;

(iii) The range of operating conditions over which the component will be evaluated; and

(iv) Conclusions regarding the emission performance and the appropriate operating conditions and services for the trial pump seal technologies or pumps.

(d) The performance trials shall initially be conducted, at least, for a 6-month period beginning not later than 18 months after the start of the quality improvement program. No later than 24 months after the start of the quality improvement program, the permittee shall have identified pump seal technologies or pump designs that, combined with appropriate process, operating, and maintenance practices, operate with low emission performance for specific applications in the process unit. The permittee

shall continue to conduct performance trials as long as no superior performing design or technology has been identified, except as provided in paragraph (d)(6)(vi) of this section. The initial list of superior emission performance pump designs or pump seal technologies shall be amended in the future, as appropriate, as additional information and experience is obtained.

(e) Any plant site with fewer than 400 valves and owned by a corporation with fewer than 100 employees shall be exempt from trial evaluations of pump seals or pump designs. Plant sites exempt from the trial evaluations of pumps shall begin the pump seal or pump replacement program at the start of the fourth year of the quality improvement program.

(f) The permittee who has conducted performance trials on all alternative superior emission performance technologies suitable for the required applications in the process unit may stop conducting performance trials provided that a superior performing design or technology has been demonstrated or there are no technically feasible alternative superior technologies remaining. The permittee shall prepare an engineering evaluation documenting the physical, chemical, or engineering basis for the judgment that the superior emission performance technology is technically infeasible or demonstrating that it would not reduce emissions.

(7) The permittee shall prepare and implement a pump quality assurance program that details purchasing specifications and maintenance procedures for all pumps and pump seals in the process unit. The quality assurance program may establish any number of categories, or classes, of pumps as needed to distinguish among operating conditions and services associated with poorer than average emission performance as well as those associated with better than average emission performance. The quality assurance program shall be developed considering the findings of the data analysis required under A.3.w.iv.(5), if applicable, the findings of the trial evaluation required in A.3.w.iv.(6), and the operating conditions in the process unit. The quality assurance program shall be updated each year as long as the process unit has the greater of either 10 percent or more leaking pumps or has three leaking pumps.

(a) The quality assurance program shall:

(i) Establish minimum design standards for each category of pumps or pump seal technology. The design standards shall specify known critical parameters such as tolerance, manufacturer, materials of construction, previous usage, or other applicable identified critical parameters;

(ii) Require that all equipment orders specify the design standard (or minimum tolerances) for the pump or the pump seal;

(iii) Provide for an audit procedure for quality control of purchased equipment to ensure conformance with purchase specifications. The audit program may be conducted by the permittee of the plant site or process unit or by a designated representative; and

(iv) Detail off-line pump maintenance and repair procedures. These procedures shall include provisions to ensure that rebuilt or refurbished pumps and pump seals will meet the design specifications for the pump category and will operate such that emissions are minimized.

(b) The quality assurance program shall be established no later than the start of the third year of the quality improvement program for plant sites with 400 or more valves or 100 or more employees; and no later than the start of the fourth year of the quality improvement program for plant sites with less than 400 valves and less than 100 employees.

(8) Beginning at the start of the third year of the quality improvement program for plant sites with 400 or more valves or 100 or more employees and at the start of the fourth year of the quality improvement program for plant sites with less than 400 valves and less than 100 employees, the permittee shall replace, as described in A.3.w.iv.(8)(a) and A.3.w.iv.(8)(b), the pumps or pump seals that are not superior emission performance technology with pumps or pump seals that have been identified as superior emission performance technology and that comply with the quality assurance standards for the pump category. Superior emission performance technology is that category or design of pumps or pump seals with emission performance which, when combined with appropriate process, operating, and maintenance practices, will result in less than 10 percent leaking pumps for specific applications in the process unit or plant site. Superior emission performance technology includes material or design changes to the existing pump, pump seal, seal support system, installation of multiple mechanical seals or equivalent, or pump replacement.

(a) Pumps or pump seals shall be replaced at the rate of 20 percent per year based on the total number of pumps in light liquid service. The calculated value shall be rounded to the nearest nonzero integer value. The minimum number of pumps or pump seals shall be one. Pump replacement shall continue until all pumps subject to the requirements of A.3.j are pumps determined to be superior performance technology.

(b) The permittee may delay replacement of pump seals or pumps with superior technology until the next planned process unit shutdown, provided the number of pump seals and pumps replaced is equivalent to the 20 percent or greater annual replacement rate.

(c) The pumps shall be maintained as specified in the quality assurance program.

3x. [40 CFR 63.177]
The permittee has not applied to use an alternative means of emission limitation under 40 CFR 63.6(g), Subpart A.

3y. [40 CFR 63.178]
The permittee does not operate a batch process subject to the provisions of section A.3.

3z. [40 CFR 63.179]
The permittee does not operate an enclosed-vented process unit subject to the provisions of section A.3.

3za. [40 CFR 63.180]
Test methods and procedures

i [40 CFR 63.180(a)]
The permittee shall comply with the test methods and procedures requirements provided in A.3.za.

ii. [40 CFR 63.180(b)]
Monitoring, as required under A.3, shall comply with the requirements of A.3.za.ii.(1) through A.3.za.ii.(6) below.

(1) Monitoring shall comply with Method 21 of 40 CFR Part 60, Appendix A.

(2) [40 CFR 63.180(b)(2)(i) & (b)(2)(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 VOC in the stream. For process streams that contain nitrogen, water, air, or other inerts which are not organic HAP's or VOC's, the average stream response factor may be calculated on an inert-free basis. The response factor may be determined at any concentration for which monitoring for leaks will be conducted. If no instrument is available at the plant site that will meet the performance criteria, the instrument readings may be adjusted by multiplying by the average response factor of the process fluid, calculated on an inert-free basis.

(3) [40 CFR 63.180(b)(3)]
The 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.

(4) [40 CFR 63.180(b)(4)]
Calibration gases shall be:

(a) [40 CFR 63.180(b)(4)(i)]
zero air (less than 10 parts per million of hydrocarbon in air); and

(b) [40 CFR 63.180(b)(4)(ii)]
mixtures of methane in air at the concentrations specified in (i) and (ii) below. 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 A.3.za.ii.(2). In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.

(i) [40 CFR 63.180(b)(4)(ii)(B)]
For the first year of operation of a new source, a mixture of methane or other compounds, as applicable, and air at a concentration of approximately, but less than, 10,000 parts per million for agitators, 5,000 parts per million for pumps, and 500 parts per million for all other equipment, except as provided in A.3.za.ii.(4)(b).

(ii) [40 CFR 63.180(b)(4)(ii)(C)]
For all other sources, a mixture of methane or other compounds, as applicable, and air at a concentration of approximately, but less than, 10,000 parts per million methane for agitators; 2,000 parts per million for pumps in food/medical service; 5,000 parts per million for pumps in polymerizing monomer service; 1,000 parts per million for all other pumps; and 500 parts per million for all other equipment, except as provided in A.3.za.ii.(4)(b).

(c) [40 CFR 63.180(b)(4)(iii)]
The instrument may be calibrated at a higher methane concentration than the concentration specified for that piece of equipment. The concentration of the calibration gas may exceed the concentration specified as a leak by no more than 2,000 parts per million. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 parts per million above the concentration specified as a leak and the highest scale shall be calibrated with a calibration gas that is approximately equal to

10,000 parts per million. If only one scale on an instrument will be used during monitoring, the permittee need not calibrate the scales that will not be used during that day's monitoring.

(5) [40 CFR 63.180(b)(5)]
Monitoring shall be performed when the equipment is in organic HAP service, in use with an acceptable surrogate volatile organic compound which is not an organic HAP, or is in use with any other detectable gas or vapor.

(6) [40 CFR 63.180(b)(6)]
Monitoring data that do not meet the criteria specified in A.3.za.ii.(1) through A.3.za.ii.(5) may be used to qualify for less frequent monitoring under the provisions in A.3.o.iii.(2) and A.3.o.iii.(3) or A.3.u.ii.(2)(b) or A.3.u.ii.(2)(c) provided the data meet the conditions specified in A.3.za.ii.(6)(a) and A.3.za.ii.(6)(b) below:

(a) [40 CFR 63.180(b)(6)(i)]
the data were obtained before April 22, 1994; and

(b) [40 CFR 63.180(b)(6)(ii)]
the departures from the criteria specified in A.3.za.ii.(1) and A.3.za.ii.(2) are minor and do not significantly affect the quality of the data. Examples of minor departures are monitoring at a slightly different frequency (such as every six weeks instead of monthly or quarterly), following the performance criteria of section 3.1.2(a) of Method 21, 40 CFR Part 60, Appendix A instead of A.3.za.ii.(2), or monitoring at a different leak definition if the data would indicate the presence or absence of a leak at the concentration specified in these terms and conditions. Failure to use a calibrated instrument is not considered a minor departure.

iii. [40 CFR 63.180(c)]
When equipment is monitored for compliance as required in A.3.l.i and A.3.s.v or when equipment subject to a leak definition of 500 ppm is monitored for leaks as required by these terms and conditions, the permittee may elect to adjust or not to adjust the instrument readings for background. If the permittee elects to not adjust instrument readings for background, the permittee shall monitor the equipment according to the procedures specified in A.3.za.ii.(1) through A.3.za.ii.(4). In such case, all 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 monitor the equipment according to the procedures specified in A.3.za.iii.(1) through A.3.za.iii.(4).

(1) [40 CFR 63.180(c)(1)]
The requirements of A.3.za.ii.(1) through A.3.za.ii.(4) shall apply.

(2) [40 CFR 63.180(c)(2)]
The background level shall be determined, using the same procedures that will be used to determine whether the equipment is leaking.

(3) [40 CFR 63.180(c)(3)]
The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21 of 40 CFR Part 60, Appendix A.

(4) [40 CFR 63.180(c)(4)]
The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 parts per million for determining compliance.

iv. [40 CFR 63.180(d)(1) & (d)(4)]
Each piece of equipment within a process unit that can reasonably be expected to contain equipment in organic HAP service is presumed to be in organic HAP service unless the permittee demonstrates that the piece of equipment is not in organic HAP service. For a piece of equipment to be considered not in organic HAP service, it must be determined that the percent organic HAP content can be reasonably expected not to exceed 5 percent by weight on an annual average basis. For purposes of determining the percent organic HAP content of the process fluid that is contained in or contacts equipment, Method 18 of 40 CFR Part 60, Appendix A shall be used. Samples used in determining the percent organic HAP content shall be representative of the process fluid that is contained in or contacts the equipment.

v. [40 CFR 63.180(d)(2)(i) & (d)(2)(ii)]
The permittee may use good engineering judgment rather than the procedures in A.3.za.iv to determine that the percent organic HAP content does not exceed 5 percent by weight. When the permittee and the USEPA Region V-Administrator do not agree on whether a piece of equipment is not in organic HAP service, however, the procedures in A.3.za.iv shall be used to resolve the disagreement. Conversely, the permittee may determine that the organic HAP content of the process fluid does not exceed 5 percent by weight by, for example, accounting for 98 percent of the content and showing that organic HAP is less than 3 percent.

vi. [40 CFR 63.180(d)(3)]
If the permittee determines that a piece of equipment is in organic HAP service, the determination can be revised after following the procedures in A.3.za.iv, or by documenting that a change in the process or raw materials no longer causes the equipment to be in organic HAP service.

[40 CFR 63.181]
Record keeping requirements

i [40 CFR 63.181(a)]
The permittee may comply with the record keeping requirements for all process units which are subject to A.3 in one record keeping system if the system identifies each record by process unit and the program being implemented (e.g., quarterly monitoring) for each type of equipment. All records and information required by A.3.zb shall be maintained in a manner that can be readily accessed at the plant site. This could include physically locating the records at the plant site or accessing the records from a central location by computer at the plant site.

ii. [40 CFR 63.181(b)]
The following information pertaining to all equipment in each emissions unit subject to the requirements in section A.3 shall be recorded:

(1) [40 CFR 63.181(b)(1)(i), (b)(1)(ii), & (b)(1)(iii)]
A list of identification numbers for equipment (except connectors exempt from monitoring and record keeping identified in A.3.u and instrumentation systems) subject to the requirements of A.3. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of A.3 are identified as a group, and the number of connectors subject is indicated. With respect to connectors, the list shall be complete no later than the completion of the initial survey required by A.3.u.ii. A schedule by emission unit for monitoring connectors subject to the provisions of A.3.u.i and valves subject to the provisions of A.3.o.iii. Physical tagging of the equipment to indicate that it is in organic HAP service is not required. Equipment subject to the provisions of A.3 may be identified on a plant site plan, in log entries, or by other appropriate methods.

(2) [40 CFR 63.181(b)(2)(i), (b)(2)(ii), & (b)(2)(iii)]
A list of identification numbers for equipment that the permittee elects to equip with a closed-vent system and control device, under the provisions of A.3.j.ix or A.3.l.ii. A list of identification of surge control vessels or bottoms receivers subject to A.3 that the permittee elects to equip with a closed-vent system and control device, under the provisions of A.3.q. Identification of surge control vessels or bottoms receivers subject to the provisions of A.3 that the permittee elects to equip with a closed-vent system and control device, under the provisions of A.3.q.

(3) [40 CFR 63.181(b)(3)(i) & (b)(3)(ii)]
A list of identification numbers for pressure relief devices subject to the provisions in A.3.l.i. A list of identification numbers for pressure relief devices equipped with rupture disks, under the provisions of A.3.l.iv.

(4) [40 CFR 63.181(b)(4)]
Identification of instrumentation systems subject to the provisions of A.3. Individual components in an instrumentation system need not be identified.

(5) [40 CFR 63.181(b)(5)]
Identification of screwed connectors subject to A.3.u.iii.(4). Identification can be by area or grouping as long as the total number within each group or area is recorded.

(6) [40 CFR 63.181(b)(6), (b)(6)(i), & (b)(6)(ii)]
For each dual mechanical seal system, the permittee shall record the design criteria required in A.3.j.vii.(6) and an explanation of the design criteria and any changes to these criteria and the reasons for the changes.

(7) [40 CFR 63.181(b)(7)]
The following information pertaining to all pumps subject to the provisions of A.3.j.ix, valves subject to A.3.o.vii and A.3.o.viii, and connectors subject to A.3.u.v through A.3.u.vii shall be recorded:

(a) [40 CFR 63.181(b)(7)(i)]
identification of equipment designated as unsafe to monitor, difficult to monitor, or unsafe to inspect and the plan for monitoring or inspecting this equipment;

(b) [40 CFR 63.181(b)(7)(ii)]
a list of identification numbers for the equipment that is designated as difficult to monitor, an explanation of why the equipment is difficult to monitor, and the planned schedule for monitoring this equipment; and

(c) [40 CFR 63.181(b)(7)(iii)]
a list of identification numbers for connectors that are designated as unsafe to repair and an explanation why the connector is unsafe to repair.

(8) [40 CFR 63.181(b)(8)(i) & (b)(8)(ii)]
A list of valves removed from and added to the process unit, as described in A.3.o.iv, if the net credits for removed valves is expected to be used. And a list of

connectors removed from and added to the process unit, as described in A.3.u.viii.(1), and documentation of the integrity of the weld for any removed connectors, as required in A.3.u.ix. This is not required unless the net credits for removed connectors is expected to be used.

iii. [40 CFR 63.181(c)]
For visual inspections of equipment subject to A.3 (e.g., A.3.j.ii. A.3.j.vii.(4)), the permittee shall document that the inspection was conducted and the date of the inspection. The permittee shall maintain records as specified in A.3.zb.iv.(1) for leaking equipment identified in this inspection. These records shall be retained for 2 years.

iv. (1) [40 CFR 63.181(d)]
When each leak is detected as specified in A.3.j, A.3.o, A.3.p, and A.3.s through A.3.u, the information specified in A.3.zb.iv.(1)(a) through A.3.zb.iv.(1)(h) shall be recorded and kept for 2 years.

(a) [40 CFR 63.181(d)(1)]
The instrument and the equipment identification number and the operator name, initials, or identification number.

(b) [40 CFR 63.181(d)(2)]
The date the leak was detected and the date of first attempt to repair the leak.

(c) [40 CFR 63.181(d)(3)]
The date of successful repair of the leak.

(d) [40 CFR 63.181(d)(4)]
Maximum instrument reading measured by Method 21 of 40 CFR Part 60, Appendix A after it is successfully repaired or determined to be nonrepairable.

(e) [40 CFR 63.181(d)(5), (d)(5)(i), & (d)(5)(ii)]
"Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. The permittee may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures may be included as part of the startup/shutdown/malfunction plan for the source or may be part of a separate document that is maintained at the plant site. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure. If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.

(f) [40 CFR 63.181(d)(6)]
Dates of process unit shutdowns that occur while the equipment is unrepaired.

(g) [40 CFR 63.181(d)(7)(i) & (d)(7)(ii)]
Identification, either by list, location (area or grouping), or tagging of connectors that have been opened or otherwise had the seal broken since the last monitoring period required in A.3.u.ii, as described in A.3.u.iii.(1) through A.3.u.iii.(3), unless the permittee elects to comply with the provisions of A.3.u.iii.(2). The date and results of monitoring as required in A.3.u.iii. If identification of connectors that have been opened or otherwise had the seal broken is made by location, then all connectors within the designated location shall be monitored.

(h) [40 CFR 63.181(d)(9)]
Copies of the Periodic Reports as specified in A.3.zc.iii, if records are not maintained on a computerized database capable of generating summary reports from the records.

(2) [40 CFR 63.181(f)]
The dates and results of the monitoring following a pressure release for each pressure relief device subject to the provisions in A.3.l.i and A.3.l.ii. The results shall include: the background level measured during each compliance test; and the maximum instrument reading measured at each piece of equipment during each compliance test.

v. [40 CFR 63.181(g)]
The permittee shall maintain records of the information specified in (1) and (2) below for closed-vent systems and control devices subject to the provisions of A.3.s. The records specified in (1) below shall be retained for the life of the equipment. The records specified in (2) below shall be retained for 2 years.

(1) [40 CFR 63.181(g)(1)(i), (g)(1)(ii), & (g)(1)(iv)]
Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams; the dates and descriptions of any changes in the design specifications; and a description of the parameter or parameters monitored, as required in A.3.s.iv, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(2) [40 CFR 63.181(g)(2)(i), (g)(2)(ii), & (g)(2)(iii)]
Records of operation of closed-vent systems and control devices including the dates and durations when the closed-vent systems and control devices required in A.3 are not operated as designed as indicated by the monitored parameters; the

dates and durations during which the monitoring system or monitoring device is inoperative; and the dates and durations of start-ups and shutdowns of control devices required in A.3.

vi. [40 CFR 63.181(i)(1), (i)(2), & (i)(3)]
The permittee of equipment in heavy liquid service shall retain information, data, and analyses used to determine that a piece of equipment is in heavy liquid service. When requested by the USEPA Region V-Administrator, or the Portsmouth Local Air Agency, the permittee shall demonstrate that the piece of equipment or process is in heavy liquid service. A determination or demonstration that a piece of equipment or process is in heavy liquid service shall include an analysis or demonstration that the process fluids do not meet the definition of "in light liquid service." Examples of information that could document this include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge.

vii. [40 CFR 63.181(j)]
Identification, either by list, location (area or group) of equipment in organic HAP service less than 300 hours per year within a process unit subject to A.3.

viii. [40 CFR 63.181(h)]
The permittee of a process unit subject to the requirements of A.3.w shall maintain the records specified in (1) through (6) below for the period of the quality improvement program for the process unit.

(1) [40 CFR 63.181(h)(3)]
The permittee shall maintain the following records when subject to the requirements of the pump quality improvement program as specified in A.3.w:

(a) All data required in A.3.w.iv.(2).

(b) The rolling average percent leaking pumps.

(c) Documentation of all inspections conducted under the requirements of A.3.w.iv.(4), and any recommendations for design or specification changes to reduce leak frequency.

(d) The beginning and ending dates while meeting the requirements of A.3.w.iv.

(2) [40 CFR 63.181(h)(4)]
If a leak is not repaired within 15 calendar days after discovery of the leak, the reason for the delay and the expected date of successful repair.

(3) [40 CFR 63.181(h)(5)]
Records of all analyses required in A.3.w.iv. The records will include the following:

(a) A list identifying areas associated with poorer than average performance and the associated service characteristics of the stream, the operating conditions and maintenance practices.

(b) The reasons for rejecting specific candidate superior emission performing valve or pump technology from performance trials.

(c) The list of candidate superior emission performing valve or pump technologies, and documentation of the performance trial program items required under A.3.w.iv.(6)(c).

(d) The beginning date and duration of performance trials of each candidate superior emission performing technology.

(4) [40 CFR 63.181(h)(6)]
All records documenting the quality assurance program for valves or pumps as specified in A.3.w.iv.(7).

(5) [40 CFR 63.181(h)(7)]
Records indicating that all valves or pumps replaced or modified during the period of the quality improvement program are in compliance with the quality assurance requirements in A.3.w.iv.(7).

(6) [40 CFR 63.181(h)(8)]
Records documenting compliance with the 20 percent or greater annual replacement rate for pumps as specified in A.3.w.iv.(8).

3zc. [40 CFR 63.182]
Reporting requirements

i [40 CFR 63.182(a)]
The permittee shall submit the reports listed in A.3.zc.i.(1) through A.3.zc.i.(3).

(1) An Initial Notification described in A.3.zc.ii;

(2) A NCS described in A.3.zc.iii; and

(3) Periodic Reports described in A.3.zc.iv.

ii. [40 CFR 63.182(b)]
The permittee shall submit a written Initial Notification to the USEPA Region V-Administrator, with a copy to the Portsmouth Local Air Agency, containing the information described in A.3.zc.ii.(1), according to the schedule in A.3.zc.ii.(2). The Initial Notification provisions in 40 CFR Part 63.9(b)(1) through (b)(3) of Subpart A shall not apply.

(1) [40 CFR 63.182(b)(1)]
The Initial Notification shall include the following information:

(a) The name and address of the permittee;

(b) The address (physical location) of the affected source;

(c) An identification of the chemical manufacturing processes subject to A.3; and

(d) A statement of whether the source can achieve compliance by the applicable compliance date specified in section A.1.

(2) [40 CFR 63.182(b)(2)]
The Initial Notification shall be submitted according to the schedule in A.3.zc.ii.(2)(a) or A.3.zc.ii.(2)(b), as applicable.

(a) For an existing source, the Initial Notification shall be submitted within 120 days after 4/22/94.

(b) For a new source that has an initial start-up 90 days after 4/22/94 or later, the application for approval of construction or reconstruction required by 40 CFR 63.5(d) of Subpart A shall be submitted in lieu of the Initial Notification. The application shall be submitted as soon as practicable before the construction or reconstruction is planned to commence (but it need not be sooner than 90 days after 4/22/94).

iii. [40 CFR 63.182(c)]
The permittee shall submit a NCS within 90 days after the compliance dates specified in A.1, except as provided in A.3.zc.iii.(2).

(1) [40 CFR 63.182(c)(1)]
The notification shall provide the information listed in A.3.zc.iii.(1)(a) through A.3.zc.iii.(1)(d) for each process unit subject to the requirements of A.3.j through A.3.u.

(a) Process unit identification;

(b) Number of each equipment type (e.g., valves, pumps) excluding equipment in vacuum service;

(c) Method of compliance with the standard (for example, ``monthly leak detection and repair'' or ``equipped with dual mechanical seals''); and

(d) Planned schedule for each phase of the requirements in A.3.j and A.3.o.

(2) [40 CFR 63.182(c)(4)]
For existing sources subject to section A.1, the NCS shall be submitted for the group of process units with the earliest compliance date specified in section A.1, by no later than 90 days after the compliance date for that group. The NCS for each subsequent group shall be submitted as part of the first Periodic Report that is due not less than 90 days after the compliance date for that group.

iv. [40 CFR 63.182(d)]
The permittee shall submit Periodic Reports.

(1) [40 CFR 63.182(d)(1)]
A report containing the information in A.3.zc.iv.(2) and A.3.zc.iv.(3) shall be submitted semiannually starting 6 months after the NCS, as required in A.3.zc.iii. The first Periodic Report shall cover the first 6 months after the compliance date specified in A.1. Each subsequent Periodic Report shall cover the 6 month period following the preceding period.

(2) [40 CFR 63.182(d)(2)]
For each process unit complying with the provisions of A.3.j through A.3.u, the summary information listed in A.3.zc.iv.(2)(a) through A.3.zc.iv.(2)(j) for each monitoring period during the 6-month period.

(a) The number of valves for which leaks were detected as described in A.3.o.ii, the percent leakers, and the total number of valves monitored;

(b) The number of valves for which leaks were not repaired as required in A.3.o.v, identifying the number of those that are determined non-repairable;

(c) The number of pumps for which leaks were detected as described in A.3.j.ii, the percent leakers, and the total number of pumps monitored;

(d) The number of pumps for which leaks were not repaired as required in A.3.j.iii;

(e) The number of connectors for which leaks were detected as described in A.3.u.i, the percent of connectors leaking, and the total number of connectors monitored;

(f) The number of connectors for which leaks were not repaired as required in A.3.u.iv, identifying the number of those that are determined non-repairable;

(g) The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible.

(h) The results of all monitoring to show compliance with A.3.l.i and A.3.s.v conducted within the semiannual reporting period;

(i) If applicable, the initiation of a monthly monitoring program under A.3.o.iii.(1);

(j) If applicable, notification of a change in connector monitoring alternatives as described in A.3.u.iii.(3).

(3) [40 CFR 63.182(d)(4)]
The information listed in A.3.zc.iii for the NCS for process units with later compliance dates. Any revisions to items reported in earlier NCS, if the method of compliance has changed since the last report.

4. [40 CFR Part 61, Subpart FF]
Benzene waste operations

4a. [40 CFR61.342(a)]
The permittee of a facility at which the total annual benzene quantity from facility waste is less than 10 megagrams per year (Mg/yr) shall be exempt from the requirements of 40 CFR 61.342(b) and (c). The total annual benzene quantity from facility waste is the sum of the annual benzene quantity for each waste stream at the facility that has a flow-weighted annual average water content greater than 10 percent or that is mixed with water, or other wastes, at any time and the mixture has an annual average water content greater than 10 percent. The benzene quantity in a waste stream is to be counted only once without multiple counting if other waste streams are mixed with or generated from the original waste stream. Other specific requirements for calculating the total annual benzene waste quantity are listed in 40 CFR 61.342(a)(1) through (a)(4).

4b. [40 CFR 61.355(a)]
The permittee shall determine the total annual benzene quantity from facility waste by the following procedure:

i [40 CFR 61.355(a)(1)]
For each waste stream subject to 40 CFR Part 61, Subpart FF having a flow-weighted annual average water content greater than 10 percent water, on a volume basis as total water, or is mixed with water or other wastes at any time and the resulting mixture has an annual average water content greater than 10 percent as specified in 40 CFR 61.342(a), the permittee shall:

(1) determine the annual waste quantity for each waste stream using the procedures specified in 40 CFR 61.355(b) and A.6.c.

(2) determine the flow-weighted annual average benzene concentration for each waste stream using the procedures specified in 40 CFR 61.355(c) and A.6.d.

(3) calculate the annual benzene quantity for each waste stream by multiplying the annual waste quantity of the waste stream times the flow-weighted annual average benzene concentration.

ii. [40 CFR 61.355(a)(2)]
Total annual benzene quantity from facility waste is calculated by adding together the annual benzene quantity for each waste stream generated during the year and the annual benzene quantity for each process unit turnaround waste annualized according to 40 CFR 61.355(b)(4).

iii. [40 CFR 61.355(a)(3)]
If the total annual benzene quantity from facility waste is equal to or greater than 10 mg/yr, then the permittee shall comply with the requirements of 40 CFR 61.342 (c), (d), or (e).

iv. [40 CFR 61.355(a)(4)]
If the total annual benzene quantity from facility waste is less than 10 Mg/yr but is equal to or greater than 1 Mg/yr, then the permittee shall:

(1) comply with the recordkeeping requirements of 40 CFR 61.356, A.6.e, A.6.f and the reporting requirements of 40 CFR 61.357 and A.6.f; and

(2) repeat the determination of total annual benzene quantity from facility waste at least once per year and whenever there is a change in the process generating the

waste that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr or more.

v. [40 CFR 61.355(a)(5)]
If the total annual benzene quantity from facility waste is less than 1 Mg/yr, then the permittee shall:

(1) comply with the recordkeeping requirements of 40 CFR 61.356, A.6.e, and A.6.f and the reporting requirements of 40 CFR 61.357 and A.6.g; and

(2) repeat the determination of total annual benzene quantity from facility waste whenever there is a change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr or more.

4c. [40 CFR 61.355(b)]
For purposes of the calculation required by 40 CFR 61.355(a), the permittee shall determine the annual waste quantity at the point of waste generation, unless otherwise provided in 40 CFR 61.355 (b) (1), (2), (3), and (4), by one of the methods given in 40 CFR 61.355(b) (5) through (7) and A.6.c.i through A.6.c.iii.

i select the highest annual quantity of waste managed from historical records representing the most recent 5 years of operation or, if the facility has been in service for less than 5 years but at least 1 year, from historical records representing the total operating life of the facility;

ii. use the maximum design capacity of the waste management unit; or

iii. use measurements that are representative of maximum waste generation rates.

4d. [40 CFR 61.355(c)]
For the purposes of the calculation required by 40 CFR 61.355(a), the permittee shall determine the flow-weighted annual average benzene concentration in a manner that meets the requirements given in 40 CFR 61.355(c)(1) and A.6.d.i using either of the methods given in 40 CFR 61.355(c)(2), (c)(3), A.6.d.ii and A.6.d.iii.

i [40 CFR 61.355(c)(1)]
The determination of flow-weighted annual average benzene concentration shall meet all of the following criteria:

(1) The determination shall be made at the point of waste generation except for the specific cases given in 40 CFR 61.355(c)(1)(i)(A) through (D).

(2) Volatilization of the benzene by exposure to air shall not be used in the determination to reduce the benzene concentration.

(3) Mixing or diluting the waste stream with other wastes or other materials shall not be used in the determination-to reduce the benzene concentration.

(4) The determination shall be made prior to any treatment of the waste that removes benzene, except as specified in 40 CFR 61.355(c)(1)(i)(A) through (D).

(5) For wastes with multiple phases, the determination shall provide the weighted-average benzene concentration based on the benzene concentration in each phase of the waste and the relative proportion of the phases.

ii. [40 CFR 61.355(c)(2)]
Knowledge of the waste. The permittee shall provide sufficient information to document the flow-weighted annual average benzene concentration of each waste stream. Examples of information that could constitute knowledge include material balances, records of chemicals purchases, or previous test results provided the results are still relevant to the current waste stream conditions. If test data are used, then the permittee shall provide documentation describing the testing protocol and the means by which sampling variability and analytical variability were accounted for in the determination of the flow-weighted annual average benzene concentration for the waste stream. When the permittee and the Administrator do not agree on determinations of the flow-weighted annual average benzene concentration based on knowledge of the waste, the procedures under 40 CFR 61.355(c)(3) and A.6.d.iii shall be used to resolve the disagreement.

iii. [40 CFR 61.355(c)(3)]
Measurements of the benzene concentration in the waste stream in accordance with the following procedures:

(1) Collect a minimum of three representative samples from each waste stream. Where feasible, samples shall be taken from an enclosed pipe prior to the waste being exposed to the atmosphere.

(2) For waste in enclosed pipes, the following procedures shall be used:

(a) Samples shall be collected prior to the waste being exposed to the atmosphere in order to minimize the loss of benzene prior to sampling.

(b) A static mixer shall be installed in the process line or in a by-pass line unless the permittee demonstrates that installation of a static mixer in the line is not necessary to accurately determine the benzene concentration of the waste stream.

(c) The sampling tap shall be located within two pipe diameters of the static mixer outlet.

(d) Prior to the initiation of sampling, sample lines and cooling coil shall be purged with at least four volumes of waste.

(e) After purging, the sample flow shall be directed to a sample container and the tip of the sampling tube shall be kept below the surface of the waste during sampling to minimize contact with the atmosphere.

(f) Samples shall be collected at a flow rate such that the cooling coil is able to maintain a waste temperature less than 10 degrees Celsius.

(g) After filling, the sample container shall be capped immediately (within 5 seconds) to leave a minimum headspace in the container.

(h) The sample containers shall immediately be cooled and maintained at a temperature below 10 degrees Celsius for transfer to the laboratory.

(3) When sampling from an enclosed pipe is not feasible, a minimum of three represntative samples shall be collected in a manner to minimize exposure of the sample to the atmosphere and loss of benzene prior to sampling.

(4) Each waste sample shall be analyzed using one of the following test methods for determining the benzene concentration in a waste stream:

(a) Method 8020, Aromatic Volatile Organics, in ``Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846;

(b) Method 8021, Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series in ``Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846;

(c) Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics in ``Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846;

(d) Method 8260, Gas Chromatography/Mass Spectrometry for Volatile Organics: Capillary Column Technique in ``Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846;

(e) Method 602, Purgeable Aromatics, as described in 40 CFR Part 136, Appendix A, Test Procedures for Analysis of Organic Pollutants, for wastewaters for which this is an approved EPA methods; or

(f) Method 624, Purgeables, as described in 40 CFR Part 136, Appendix A, Test Procedures for Analysis of Organic Pollutants, for wastewaters for which this is an approved EPA method.

(5) The flow-weighted annual average benzene concentration shall be calculated by averaging the results of the sample analyses using the equation in 40 CFR 61.355(c)(3)(v):
Where:
C=Flow-weighted annual average benzene concentration for waste stream, ppmw.
Qt=Total annual waste quantity for waste stream, kg/yr.
n=Number of waste samples (at least 3).
Qi=Annual waste quantity for waste stream represented by Ci, kg/yr.
Ci=Measured concentration of benzene in waste sample i, ppmw.

4e. [40 CFR 61.356(a)]
The permittee shall comply with the record keeping requirements of 40 CFR 61.356, A.6.e, and A.6.f. Each record shall be maintained in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified.

4f. [40 CFR 61.356(b)]
The permittee shall maintain records that identify each waste stream at the facility subject to 40 CFR Part 61, Subpart FF, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with 40 CFR Part 61, Subpart FF. In addition the permittee shall maintain the following records:

i [40 CFR 61.356(b)(1)]
For each waste stream not controlled for benzene emissions in accordance with 40 CFR Part 61, Subpart FF, the records shall include all test results, measurements, calculations, and other documentation used to determine the following information for the waste stream: waste stream identification, water content, whether or not the waste stream is a process wastewater stream, annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity.

ii. [40 CFR 61.356(b)(2)]
For each waste stream exempt from 40 CFR 61.342(c)(1) in accordance with 40 CFR 61.342(c)(3), the records shall include:

(1) all measurements, calculations, and other documentation used to determine that the continuous flow of process wastewater is less than 0.02 liters per minute or the

annual waste quantity of process wastewater is less than 10 Mg/yr in accordance with 40 CFR 61.342(c)(3)(i), or

(2) all measurements, calculations, and other documentation used to determine that the sum of the total annual benzene quantity in all exempt waste streams does not exceed 2.0 Mg/yr in accordance with 40 CFR 61.342(c)(3)(ii).

4g. If the total annual benzene quantity from facility waste is less than 1 Mg/yr, then the permittee shall submit to the Administrator, with a copy to the Portsmouth Local Air Agency, a report that updates the information listed in 40 CFR 61.357(a)(1) through (a)(3) whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr or more.

5. 40 CFR Part 68 is an applicable requirement for this facility. The permittee shall submit a Risk Management Plan pursuant to 40 CFR Part 68, to the appropriate designated agency and comply with all appropriate subparts no later than June 20, 1999.

6. The permittee may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial/Commercial/Institutional Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD, Site Remediation, 40 CFR Part 63, Subpart GGGGG and Reciprocating Internal Combustion Engines, 40 CFR Part 63, Subpart ZZZZ. U.S. EPA failed to promulgate this standard by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR Part 63, Subpart B (40 CFR Parts 63.50 through 63.56), the permittee shall submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application shall be submitted in two parts. The deadline to submit the Part I application, as specified in 40 CFR Part 63.53, was May 15, 2002.

6a. If the final NESHAP standard is not promulgated by the deadline specified by U.S. EPA, the permittee shall submit the Part II application as specified in 40 CFR Part 63.53. The Part II application shall be submitted within 60 days after the deadline to promulgate the respective standard or by May 15, 2003, whichever is later. It must contain the following information, unless otherwise specified by future U.S. EPA regulations:

i. for a new affected source, the anticipated date of startup of operation;
ii. the hazardous air pollutants (HAPs)emitted by each affected source in the relevant source category and an estimated total uncontrolled and controlled emission rate for HAPs from the affected source;
iii. any existing federal, State, or local limitations or requirements applicable to the affected source;
iv. for each affected emission point or group of affected emission points, an identification of control technology in place;
v. information relevant to establishing the MACT floor (or MACT emission limitation), and, at the option of the permittee, a recommended MACT floor; and

vi. any other information reasonably needed by the permitting authority including, at the discretion of the permitting authority, information required pursuant to Subpart A of 40 CFR Part 63.

6a. The Part II application for a MACT determination may, but is not required to, contain the following information:

i. recommended emission limitations for the affected source and support information. (the permittee may recommend a specific design, equipment, work practice, or operational standard, or combination thereof, as an emission limitation);

ii. a description of the control technologies that would be applied to meet the emission limitation, including technical information on the design, operation, size, estimated control efficiency and any other information deemed appropriate by the permitting authority, and identification of the affected sources to which the control technologies must be applied; and

iii. relevant parameters to be monitored and frequency of monitoring to demonstrate continuous compliance with the MACT emission limitation over the applicable reporting period.

6b. If the NESHAP is promulgated before the Part II application is due for the relevant souce category, the permittee may be subject to the rule as an existing major source with a compliance date as specified in the NESHAP. If subject, the permittee shall submit the following notifications:

i Unless otherwise specified in the relevant Subpart, within 120 days after promulgation of a 40 CFR Part 63 Subpart to which the source is subject, the permittee shall submit an Initial Notification Report that contains the following information, in accordance with 40 CFR Part 63.9(b)(2):

(1) the name and mailing address of the permittee;

(2) the physical location of the source if it is different from the mailing address;

(3) identification of the relevant MACT standard and the source's compliance date;

(4) a brief description of the nature, design, size, 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 the types of HAPs emitted; and

(5) a statement confirming the facility is a major source for HAPs.

6b. Unless otherwise specified in the relevant Subpart, within 60 days following completion of any required compliance demonstration activity specified in the relevant Subpart, the permittee shall submit a notification of compliance status that contains the following information:

(1) the methods used to determine compliance;

(2) the results of any performance tests, visible emission observations, continuous monitoring systems performance evaluations, and/or other monitoring procedures or methods that were conducted;

(3) the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;

(4) the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in the relevant Subpart;

(5) an analysis demonstrating whether the affected source is a major source or an area source;

(6) a description of the air pollution control equipment or method for each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and

(7) a statement of whether or not the permittee has complied with the requirements of the relevant Subpart.

7. The following insignificant emissions units are located at this facility:

B011 - oil & gas process heater (301-BR);
G001 - gasoline storage & refueling (D-165 (PTI 07-185);
J001 - east barge loading (PTI 07-451);
J002 - CHP loading racks (PTI 07-150);
J003 - west barge loading ;
J005 - Aniline/DPA railcar loading rack ;
J007 - Aniline/DPA truck loading rack ;
P005 - CHP refining plant(PTI 07-150);
P010 - BPA wastewater treatment plant (PTI 07-264);
P011 - Phenol salt recovery system (PTI 07-332);
T010 - Phenol solutions storage tank (D-119)(PTI 07-264);
T027 - Acetone storage tank (2103-FA);
T028 - Acetone storage tank (2103-FB);
T035 - AMS storage tank (2107-FA)(PTI 07-451);
T041 - hydrochloric acid storage tank (TK-2002) (PTI 07-015);
T049 - AMS storage tank (2107-F) (PTI 07-451);
T050 - refined DPA storage tank (F-96)(PTI 07-387);
T053 - CHP storage tank (2106-F) (PTI 07-150);
T054 - CHP storage tank (2106-FA) (PTI 07-150);
T058 - phenol solution storage tank (D-120) (PTI 07-185) ;
T060 - scrubbing liquid storage (508-F) (PTI 07-232);

T061 - methanol storage tank (D-156) (PTI 07-281, 07-264); and
T062 - BPA storm water surge tank (D-133) (PTI 07-232).

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, and 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 of the applicable requirements contained in the federally-approved versions of OAC Chapters 3745-17, 3745-18, and/or 3745-21.

B. State Only Enforceable Section

1. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirement (as defined in OAC rule 3745-77-01(H)) or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

T009 - oxidate wastewater storage tank (D-118);
T031 - riverwater storage tank (T-701);
T032 - riverwater storage tank (T-702);
Z001 - Safety Kleen Unit 1180 - BPA;
Z002 - Carpenter Shop - BPA;
Z003 - Carpenter Shop - Aniline;
Z004 - Diesel Fire Water Pump - General Plant;
Z005 - Diesel Fire Water Pump - General Plant;
Z006 - Safety Kleen - 1180 unit - Aniline;
Z007 - Safety Kleen - 60 unit - Aniline;
Z008 - Safety Kleen - 60 unit - Aniline;
Z009 - Safety Kleen - 180 unit - Phenol;
Z010 - Safety Kleen - 230 unit - Phenol;
Z011 - Portable gas-fired welder - Phenol;
Z012 - Portable gas-fired welder - Phenol;
Z013 - Small gas generator - Phenol;
Z014 - Carpenter Shop - Phenol;
Z015 - ICD Laboratory Equipment;
Z016 - Emergency Generator - Phenol;
Z017 - Emergency Generator - BPA;
Z018 - Emergency Generator - Aniline;
Z019 - (2009-F);
Z020 - (2214-F);
Z021 - corrosion inhibitor tank (2213-F);
Z022 - corrosion inhibitor tank (2212-F);
Z023 - deposit inhibitor tank (2211-F);
Z024 - general maintenance painting;
Z025 - gas-fired generator - general plant;
Z026 - gas-fired pump - general plant;
Z027 - gas-fired pump - general plant; and
Z028 - gas-fired power washer - general plant.
Z029 - Plant roadways and parking areas

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 2001-UA (B004)
Activity Description: Natural Gas,Oil or By-product Fuel Fired Boiler

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
192 mmBtu per hour boiler (2001-UA) fired with: light hydrocarbon by-product fuel; heavy hydrocarbon by-product fuel; natural gas; #2 fuel oil; and/or #6 fuel oil	OAC rule 3745-31-05(A)(3) (PTI 07-240)	Volatile organic compound emissions shall not exceed 1.0 pound per hour and 4.2 tons per year. The sulfur dioxide emission limitation established by OAC rule 3745-31-05(A)(3) is less stringent than the emission limitation established by OAC rule 3745-18-79(B)(2). The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-17-10(B)(1), 3745-17-10(C)(1), and 3745-18-79(B)(2).
	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 pound per mmBtu of actual heat input when burning natural gas and/or #2 fuel oil.
OAC rule 3745-17-10(C)(1)	Particulate emissions shall not exceed 0.102 pound per mmBtu of actual heat input when burning #6 fuel oil and/or by-product fuel. This limit was calculated from curve P-1 of Figure I. See section A.I.2.a below.
OAC rule 3745-18-79(B)(2)	Sulfur dioxide emissions shall not exceed 0.6 pound per mmBtu of actual heat input.

2. Additional Terms and Conditions

2.a In accordance with OAC rule 3745-17-10(B), this particulate emission limitation is based on the combined total heat input for emissions units B004, B005, B006, B009, and B010 which are physically or operationally united.

2.b The heavy hydrocarbon and light hydrocarbon by-product fuels are hazardous waste; therefore, this emissions unit is subject to the requirements of 40 CFR Part 266.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall collect and analyze samples of the light hydrocarbon waste fuels burned in this emissions unit on at least a monthly basis. Each light hydrocarbon waste fuel batch is defined by the results of the most recent sample. No light hydrocarbon waste fuel will be burned between the time the sample is taken and the time the sample results are received.

   The permittee shall collect and analyze samples of the heavy hydrocarbon waste fuels burned in this emissions unit for each batch collected in the heavy hydrocarbon waste fuel storage tanks. Each heavy hydrocarbon waste fuel batch is defined by the results of its batch sample. A new heavy hydrocarbon waste fuel batch will not be burned until the time the sample results of that batch are received.

Each sample shall be analyzed in accordance with the procedures specified in the following test methods:

a. ASTM D2382 to determine heating value (Btu/lb);

b. ASTM D482 to determine ash content (weight %); and

c. ASTM D129 to determine sulfur content (weight %).

Alternative test methods may be used with prior approval from the Ohio EPA.

The permittee may use fuel analysis reports from the supplier to determine the heating value, ash content, and sulfur content of natural gas, #2 fuel oil, and #6 fuel oil.

Each natural gas fuel batch is defined by the most recent analysis received from the supplier. These analyses must be obtained at least every quarter. Each #2 fuel oil batch and #6 fuel oil batch is defined by the analysis for the most recent shipment of oil received.

2. The permittee shall maintain at least monthly records of the following for each fuel batch-firing scenario burned in this emissions unit:

a. the quantity of each fuel burned (pounds of hydrocarbon fuels, standard cubic feet of natural gas, pounds of fuel oil);

b. the heat content of each fuel (Btu per pound, Btu per standard cubic feet, Btu per pound);

c. the ash content of each fuel (weight %);

d. the sulfur content of each fuel (weight % or gr/100 dscf);

e. The start time and date of each fuel batch firing scenario; and

f. The end time and date of each fuel batch firing scenario.

A fuel batch-firing scenario is defined as a combination of fuels burned with specific characteristics determined by the sampling results of Section A.III.1 above. Therefore, a new fuel batch-firing scenario will begin when a new fuel batch analysis is received, as defined in Section A.III.1, and/or when there is a change in the fuel or combination of fuels burned in the emissions unit.

3. The permittee shall calculate and maintain monthly records of the average pounds of particulate emissions per MMBtu for each fuel batch-firing scenario.

The calculation shall be performed as described below.

a. Calculate the particulate emission contribution from each fuel burned, in pounds of particulate per fuel batch-firing scenario.

b. Calculate the total amount of particulate emitted per fuel batch-firing scenario by summing the contribution of each fuel burned.

c. Calculate the heat input for each fuel burned, in MMBtu per fuel batch-firing scenario.

d. Calculate the total heat input per fuel batch-firing scenario that was provided by the combined fuels by summing the contribution for each fuel burned.

e. Calculate the average emissions, in pounds of particulate per MMBtu per fuel batch-firing scenario of the combined fuels.

4. The permittee shall calculate and maintain monthly records of the average pounds of sulfur dioxide emissions per MMBtu for each fuel batch-firing scenario.

The calculation shall be performed as described below.

a. Calculate the sulfur dioxide emission contribution from each fuel burned, in pounds of sulfur dioxide per fuel batch-firing scenario.

b. Calculate the total amount of sulfur dioxide emitted per fuel batch-firing scenario by summing the contribution of each fuel burned.

c. Calculate the heat input for each fuel burned, in MMBtu per fuel batch-firing scenario.

d. Calculate the total heat input per fuel batch-firing scenario that was provided by the combined fuels by summing the contribution for each fuel burned.

e. Calculate the average emissions, in pounds of sulfur dioxide per MMBtu per fuel batch-firing scenario of the combined fuels,

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 # 07-240, issued on 12/4/91 and modified on 08/28/01: 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 include an identification of each fuel batch scenario during which the average sulfur dioxide emission rate exceeded 0.6 pound per mmBtu, and the actual sulfur dioxide emission rate for each such period.

2. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each fuel batch scenario during which the average particulate emission rate exceeded 0.020 pound per mmBtu when burning natural gas and/or #2 fuel oil or 0.102 pound per mmBtu when burning #6 fuel oil and/or by-product fuel, and the actual particulate emission rate for each such period.

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 #07-240, issued on 12/4/91 and modified on 08/28/01: 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 methods:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 1.0 pound per hour.

Applicable Compliance Method:

Compliance with the hourly emissions limit shall be demonstrated by multiplying the VOC emission factor for the worst case fuel times the maximum quantity of fuel fired per hour. Natural gas was determined to be the worst case fuel. The emission factor for each fuel is listed below:

i. 5.5 pounds of VOC per million standard cubic feet of natural gas burned (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.4, Table 1.4-2, dated July, 1998)

ii. 0.20 pound of VOC per thousand gallons of #2 fuel oil burned (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998)

iii. 0.28 pound of VOC per thousand gallons of #6 fuel oil burned (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998)

iv. 0.0000284 pound of VOC per pound of light hydrocarbon fuel burned, a #2 fuel oil equivalent fuel (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998)

v. 0.0000355 pound of VOC per pounds of heavy hydrocarbon fuel burned, a #6 oil equivalent fuel (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998)

1a. If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18 or 25.

1b. Emission Limitation -

Volatile organic compound emissions shall not exceed 4.2 tons per year.

Applicable Compliance Method:

The ton per year emission limitation was developed by multiplying the pound per hour limit by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Therefore, provided compliance is shown with the hourly emission limit, compliance will also be shown with the annual limitation.

1c. Emission Limitation -

Visible particulate emissions from the Boiler 2001-UA stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

1d. Emission Limitation -

Particulate emissions shall not exceed 0.020 pound per mmBtu of actual heat input when burning natural gas and/or #2 fuel oil.
Particulate emissions shall not exceed 0.102 pound per mmBtu of actual heat input when burning #6 fuel oil and/or by-product fuel.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(9).

1e. Emission Limitation -

Sulfur dioxide emissions shall not exceed 0.6 pound per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, and 6 and the procedures and methods required in OAC rule 3745-18-04(E)(1).

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 months of permit issuance.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and sulfur dioxide.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for sulfur dioxide, Method 6 or 6e of 40 CFR Part 60, Appendix A. Alternative U. S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the 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.

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 #07-240, issued on 12/4/91 and modified on 08/28/01: 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

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: 2001-UB (B005)
Activity Description: Natural Gas,Oil or By-product Fuel Fired Boiler

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
197 mmBtu per hour boiler (2001-UB) fired with: light hydrocarbon by-product fuel; heavy hydrocarbon by-product fuel; natural gas; #2 fuel oil; and/or #6 fuel oil	OAC rule 3745-31-05(A)(3) (PTI 07-240)	Volatile organic compound emissions shall not exceed 1.0 pound per hour and 4.2 tons per year. The sulfur dioxide emission limitation established by OAC rule 3745-31-05(A)(3) is less stringent than the emission limitation established by OAC rule 3745-18-79(B)(2). The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-17-10(B)(1), 3745-17-10(C)(1), and 3745-18-79(B)(2).
	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 pound per mmBtu of actual heat input when burning natural gas and/or #2 fuel oil.
OAC rule 3745-17-10(C)(1)	Particulate emissions shall not exceed 0.102 pound per mmBtu of actual heat input when burning #6 fuel oil and/or by-product fuel. This limit was calculated from curve P-1 of Figure I. See section A.I.2.a below.
OAC rule 3745-18-79(B)(2)	Sulfur dioxide emissions shall not exceed 0.6 pound per mmBtu of actual heat input.

2. Additional Terms and Conditions

2.a In accordance with OAC rule 3745-17-10(B), this particulate emission limitation is based on the combined total heat input for emissions units B004, B005, B006, B009, and B010 which are physically or operationally united.

2.b The heavy hydrocarbon and light hydrocarbon by-product fuels are hazardous waste; therefore, this emissions unit is subject to the requirements of 40 CFR Part 266.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall collect and analyze samples of the light hydrocarbon waste fuels burned in this emissions unit on at least a monthly basis. Each light hydrocarbon waste fuel batch is defined by the results of the most recent sample. No light hydrocarbon waste fuel will be burned between the time the sample is taken and the time the sample results are received.

   The permittee shall collect and analyze samples of the heavy hydrocarbon waste fuels burned in this emissions unit for each batch collected in the heavy hydrocarbon waste fuel storage tanks. Each heavy hydrocarbon waste fuel batch is defined by the results of its batch sample. A new heavy hydrocarbon waste fuel batch will not be burned until the time the sample results of that batch are received.

Each sample shall be analyzed in accordance with the procedures specified in the following test methods:

a. ASTM D2382 to determine heating value (Btu/lb);

b. ASTM D482 to determine ash content (weight %); and

c. ASTM D129 to determine sulfur content (weight %).

Alternative test methods may be used with prior approval from the Ohio EPA.

The permittee may use fuel analysis reports from the supplier to determine the heating value, ash content, and sulfur content of natural gas, #2 fuel oil, and #6 fuel oil.

Each natural gas fuel batch is defined by the most recent analysis received from the supplier. These analyses must be obtained at least every quarter. Each #2 fuel oil batch and #6 fuel oil batch is defined by the analysis for the most recent shipment of oil received.

2. The permittee shall maintain at least monthly records of the following for each fuel batch-firing scenario burned in this emissions unit:

a. the quantity of each fuel burned (pounds of hydrocarbon fuels, standard cubic feet of natural gas, pounds of fuel oil);

b. the heat content of each fuel (Btu per pound, Btu per standard cubic feet, Btu per pound);

c. the ash content of each fuel (weight %);

d. the sulfur content of each fuel (weight % or gr/100 dscf);

e. The start time and date of each fuel batch firing scenario; and

f. The end time and date of each fuel batch firing scenario.

A fuel batch-firing scenario is defined as a combination of fuels burned with specific characteristics determined by the sampling results of Section A.III.1 above. Therefore, a new fuel batch-firing scenario will begin when a new fuel batch analysis is received, as defined in Section A.III.1, and/or when there is a change in the fuel or combination of fuels burned in the emissions unit.

3. The permittee shall calculate and maintain monthly records of the average pounds of particulate emissions per MMBtu for each fuel batch-firing scenario.

The calculation shall be performed as described below.

a. Calculate the particulate emission contribution from each fuel burned, in pounds of particulate per fuel batch-firing scenario.

b. Calculate the total amount of particulate emitted per fuel batch-firing scenario by summing the contribution of each fuel burned.

c. Calculate the heat input for each fuel burned, in MMBtu per fuel batch-firing scenario.

d. Calculate the total heat input per fuel batch-firing scenario that was provided by the combined fuels by summing the contribution for each fuel burned.

e. Calculate the average emissions, in pounds of particulate per MMBtu per fuel batch-firing scenario of the combined fuels.

4. The permittee shall calculate and maintain monthly records of the average pounds of sulfur dioxide emissions per MMBtu for each fuel batch-firing scenario.

The calculation shall be performed as described below.

a. Calculate the sulfur dioxide emission contribution from each fuel burned, in pounds of sulfur dioxide per fuel batch-firing scenario.

b. Calculate the total amount of sulfur dioxide emitted per fuel batch-firing scenario by summing the contribution of each fuel burned.

c. Calculate the heat input for each fuel burned, in MMBtu per fuel batch-firing scenario.

d. Calculate the total heat input per fuel batch-firing scenario that was provided by the combined fuels by summing the contribution for each fuel burned.

e. Calculate the average emissions, in pounds of sulfur dioxide per MMBtu per fuel batch-firing scenario of the combined fuels, .

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 # 07-240, issued on 12/4/91 and modified on 08/28/01: 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 include an identification of each fuel batch scenario during which the average sulfur dioxide emission rate exceeded 0.6 pound per mmBtu, and the actual sulfur dioxide emission rate for each such period.

2. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each fuel batch scenario during which the average particulate emission rate exceeded 0.020 pound per mmBtu when burning natural gas and/or #2 fuel oil or 0.102 pound per mmBtu when burning #6 fuel oil and/or by-product fuel, and the actual particulate emission rate for each such period.

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 #07-240, issued on 12/4/91 and modified on 08/28/01: 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 methods:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 1.0 pound per hour.

Applicable Compliance Method:

Compliance with the hourly emissions limit shall be demonstrated by multiplying the VOC emission factor for the worst case fuel times the maximum quantity of fuel fired per hour. Natural gas was determined to be the worst case fuel. The emission factor for each fuel is listed below:

i. 5.5 pounds of VOC per million standard cubic feet of natural gas burned (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.4, Table 1.4-2, dated July, 1998)

ii. 0.20 pound of VOC per thousand gallons of #2 fuel oil burned (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998)

iii. 0.28 pound of VOC per thousand gallons of #6 fuel oil burned (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998)

iv. 0.0000284 pound of VOC per pound of light hydrocarbon fuel burned, a #2 fuel oil equivalent fuel (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998)

v. 0.0000355 pound of VOC per pounds of heavy hydrocarbon fuel burned, a #6 oil equivalent fuel (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998)

1a. If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18 or 25.

1b. Emission Limitation -

Volatile organic compound emissions shall not exceed 4.2 tons per year.

Applicable Compliance Method:

The ton per year emission limitation was developed by multiplying the pound per hour limit by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Therefore, provided compliance is shown with the hourly emission limit, compliance will also be shown with the annual limitation.

1c. Emission Limitation -

Visible particulate emissions from the Boiler 2001-UB stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

1d. Emission Limitation -

Particulate emissions shall not exceed 0.020 pound per mmBtu of actual heat input when burning natural gas and/or #2 fuel oil.
Particulate emissions shall not exceed 0.102 pound per mmBtu of actual heat input when burning #6 fuel oil or by-product fuel.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(9).

1e. Emission Limitation -

Sulfur dioxide emissions shall not exceed 0.6 pound per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, and 6 and the procedures and methods required in OAC rule 3745-18-04(E)(1).

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 months of permit issuance.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and sulfur dioxide.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for sulfur dioxide, Method 6 or 6e of 40 CFR Part 60, Appendix A. Alternative U. S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the 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.

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 #07-240, issued on 12/4/91 and modified on 08/28/01: 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

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: 2001-UC (B006)
Activity Description: Natural Gas,Oil or By-product Fuel Fired Boiler

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
191 mmBtu per hour boiler (2001-UC) fired with: light hydrocarbon by-product fuel; heavy hydrocarbon by-product fuel; natural gas; #2 fuel oil; and/or #6 fuel oil	OAC rule 3745-31-05(A)(3) (PTI 07-240)	Volatile organic compound emissions shall not exceed 1.0 pound per hour and 4.2 tons per year. Sulfur dioxide emissions shall not exceed 1.6 pounds per mmBtu of actual heat input. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-17-10(B)(1), and 3745-17-10(C)(1).
	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 pound per mmBtu of actual heat input when burning natural gas and/or #2 fuel oil.

OAC rule 3745-17-10(C)(1)	Particulate emissions shall not exceed 0.102 pound per mmBtu of actual heat input when burning #6 fuel oil and/or by-product fuel. This limit was calculated from curve P-1 of Figure I. See section A.I.2.a below.
OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established by OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a In accordance with OAC rule 3745-17-10(B), this particulate emission limitation is based on the combined total heat input for emissions units B004, B005, B006, B009, and B010 which are physically or operationally united.

2.b The heavy hydrocarbon and light hydrocarbon by-product fuels are hazardous waste; therefore, this emissions unit is subject to the requirements of 40 CFR Part 266.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall collect and analyze samples of the light hydrocarbon waste fuels burned in this emissions unit on at least a monthly basis. Each light hydrocarbon waste fuel batch is defined by the results of the most recent sample. No light hydrocarbon waste fuel will be burned between the time the sample is taken and the time the sample results are received.

   The permittee shall collect and analyze samples of the heavy hydrocarbon waste fuels burned in this emissions unit for each batch collected in the heavy hydrocarbon waste fuel storage tanks. Each heavy hydrocarbon waste fuel batch is defined by the results of its batch sample. A new heavy hydrocarbon waste fuel batch will not be burned until the time the sample results of that batch are received.

   Each sample shall be analyzed in accordance with the procedures specified in the following test methods:

a. ASTM D2382 to determine heating value (Btu/lb);

b. ASTM D482 to determine ash content (weight %); and

c. ASTM D129 to determine sulfur content (weight %).

Alternative test methods may be used with prior approval from the Ohio EPA.

The permittee may use fuel analysis reports from the supplier to determine the heating value, ash content, and sulfur content of natural gas, #2 fuel oil, and #6 fuel oil.

Each natural gas fuel batch is defined by the most recent analysis received from the supplier. These analyses must be obtained at least every quarter. Each #2 fuel oil batch and #6 fuel oil batch is defined by the analysis for the most recent shipment of oil received.

2. The permittee shall maintain at least monthly records of the following for each fuel batch-firing scenario burned in this emissions unit:

   a. the quantity of each fuel burned (pounds of hydrocarbon fuels, standard cubic feet of natural gas, pounds of fuel oil);

   b. the heat content of each fuel (Btu per pound, Btu per standard cubic feet, Btu per pound);

   c. the ash content of each fuel (weight %);

   d. the sulfur content of each fuel (weight % or gr/100 dscf);

   e. The start time and date of each fuel batch firing scenario; and

   f. The end time and date of each fuel batch firing scenario.

   A fuel batch-firing scenario is defined as a combination of fuels burned with specific characteristics determined by the sampling results of Section A.III.1 above. Therefore, a new fuel batch-firing scenario will begin when a new fuel batch analysis is received, as defined in Section A.III.1, and/or when there is a change in the fuel or combination of fuels burned in the emissions unit.

3. The permittee shall calculate and maintain monthly records of the average pounds of particulate emissions per MMBtu for each fuel batch-firing scenario.

   The calculation shall be performed as described below.

   a. Calculate the particulate emission contribution from each fuel burned, in pounds of particulate per fuel batch-firing scenario.

b. Calculate the total amount of particulate emitted per fuel batch-firing scenario by summing the contribution of each fuel burned.

c. Calculate the heat input for each fuel burned, in MMBtu per fuel batch-firing scenario.

d. Calculate the total heat input per fuel batch-firing scenario that was provided by the combined fuels by summing the contribution for each fuel burned.

e. Calculate the average emissions, in pounds of particulate per MMBtu per fuel batch-firing scenario of the combined fuels.

4. The permittee shall calculate and maintain monthly records of the average pounds of sulfur dioxide emissions per MMBtu for each fuel batch-firing scenario.

The calculation shall be performed as described below.

a. Calculate the sulfur dioxide emission contribution from each fuel burned, in pounds of sulfur dioxide per fuel batch-firing scenario.

b. Calculate the total amount of sulfur dioxide emitted per fuel batch-firing scenario by summing the contribution of each fuel burned.

c. Calculate the heat input for each fuel burned, in MMBtu per fuel batch-firing scenario.

d. Calculate the total heat input per fuel batch-firing scenario that was provided by the combined fuels by summing the contribution for each fuel burned.

e. Calculate the average emissions, in pounds of sulfur dioxide per MMBtu per fuel batch-firing scenario of the combined fuels, .

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 # 07-240, issued on 12/4/91 and modified on 08/28/01: 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 include an identification of each fuel batch scenario during which the average sulfur dioxide emission rate exceeded 0.6 pound per mmBtu, and the actual sulfur dioxide emission rate for each such period.

2. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each fuel batch scenario during which the average particulate emission rate exceeded 0.020 pound per mmBtu when burning natural gas and/or #2 fuel oil or 0.102 pound per mmBtu when burning #6 fuel oil and/or by-product fuel, and the actual particulate emission rate for each such period.

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 #07-240, issued on 12/4/91 and modified on 08/28/01: 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:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 1.0 pound per hour.

Applicable Compliance Method:

Compliance with the hourly emissions limit shall be demonstrated by multiplying the VOC emission factor for the worst case fuel times the maximum quantity of fuel fired per hour. Natural gas was determined to be the worst case fuel. The emission factor for each fuel is listed below:

i. 5.5 pounds of VOC per million standard cubic feet of natural gas burned (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.4, Table 1.4-2, dated July, 1998)

ii. 0.20 pound of VOC per thousand gallons of #2 fuel oil burned (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998)

iii. 0.28 pound of VOC per thousand gallons of #2 fuel oil burned (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998)

iv. 0.0000284 pound of VOC per pound of light hydrocarbon fuel burned, a #2 fuel oil equivalent fuel (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998)

v. 0.0000355 pound of VOC per pounds of heavy hydrocarbon fuel burned, a #6 oil equivalent fuel (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998)

1a. If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18 or 25.

1b. Emission Limitation -

Volatile organic compound emissions shall not exceed 4.2 tons per year.

Applicable Compliance Method:

The ton per year emission limitation was developed by multiplying the pound per hour limit by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Therefore, provided compliance is shown with the hourly emission limit, compliance will also be shown with the annual limitation.

1c. Emission Limitation -

Visible particulate emissions from the Boiler 2001-UC stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

1d. Emission Limitation -

Particulate emissions shall not exceed 0.020 pound per mmBtu of actual heat input when burning natural gas and/or #2 fuel oil.
Particulate emissions shall not exceed 0.102 pound per mmBtu of actual heat input when burning #6 fuel oil or by-product fuel.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(9).

1e. Emission Limitation -

Sulfur dioxide emissions shall not exceed 1.6 pounds per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, and 6 or 6e and the procedures and methods required in OAC rule 3745-18-04(E)(1).

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 months of permit issuance.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and sulfur dioxide.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for sulfur dioxide, Method 6 or 6e of 40 CFR Part 60, Appendix A. Alternative U. S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the 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.

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 #07-240, issued on 12/4/91 and modified on 08/28/01: 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

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: 2001-UD (B009)
Activity Description: Natural Gas & Oil Fired Boiler

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
190 mmBtu per hour boiler (2001-UD) fired with: natural gas and/or #2 fuel oil	OAC rule 3745-31-05(A)(3) (PTI 07-240)	Volatile organic compound emissions from the boiler shall not exceed 1.0 pound per hour and 4.2 tons per year. Sulfur dioxide emissions shall not exceed 1.6 pounds per mmBtu of actual heat input. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and 3745-17-10(B)(1).
	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 pound per mmBtu of actual heat input.

OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established by OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a In accordance with OAC rule 3745-17-10(B), this particulate emission limitation is based on the combined total heat input for emissions units B004, B005, B006, B009, and B010 which are physically or operationally united.

II Operational Restrictions

1. The permittee shall burn only natural gas and/or #2 fuel oil in this boiler.

III Monitoring and/or Recordkeeping

1. For each day during which the permittee burns a fuel other than natural gas and/or #2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

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 # 07-240, issued on 12/4/91 and modified on 08/28/01: 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 deviation (excursion) reports that identify each day when a fuel other than natural gas and/or #2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

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 # 07-240, issued on 12/4/91 and modified on 08/28/01: 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 of 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:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 1.0 pound per hour.

Applicable Compliance Method:

Compliance with the hourly emissions limit shall be demonstrated by calculating the sum of the following:

i. Emissions from the combustion of natural gas: multiply the maximum boiler rating, in mmBtu per hour, times the VOC emission factor of 5.5 pounds per mmcf burned divided by the heat content of the fuel, in mmBtu per mmcf. The VOC emission factor was obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.4, Table 1.4-2, dated July, 1998.

ii. Emissions from the combustion of #2 distillate fuel oil: multiply the maximum boiler rating, in mmBtu per hour, times the VOC emission factor of 0.20 pound per 1,000 gallons burned divided by the heat content of the fuel, in mmBtu per 1,000 gallons. The VOC emission factor was obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998.

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18 or 25.

1b. Emission Limitation -

Volatile organic compound emissions shall not exceed 4.2 tons per year.

Applicable Compliance Method:

The ton per year emission limitation was developed by multiplying the pound per hour limit by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Therefore, provided compliance is shown with the hourly emission limit, compliance will also be shown with the annual limitation.

1c. Emission Limitation -

Sulfur dioxide emissions shall not exceed 1.6 pounds per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, and 6 or 6e and the procedures and methods required in OAC rule 3745-18-04(E)(1).

1d. Emission Limitation -

Visible particulate emissions from the Boiler 2001-UD stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

1e. Emission Limitation -

Particulate emissions shall not exceed 0.020 pound per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(9).

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 months of permit issuance.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and sulfur dioxide.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for sulfur dioxide, Method 6 or 6e of 40 CFR Part 60, Appendix A. Alternative U. S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the 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.

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 #)7-240, issued on 12/4/91 and modified on 08/28/01: 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

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: 2001-UE (B010)
Activity Description: Natural Gas,Oil or By-product Fuel Fired Boiler

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
190 mmBtu per hour boiler (2001-UE) fired with: light hydrocarbon by-product fuel; heavy hydrocarbon by-product fuel; natural gas; #2 fuel oil; and/or #6 fuel oil	OAC rule 3745-31-05(A)(3) (PTI 07-240)	Volatile organic compound emissions shall not exceed 1.0 pound per hour and 4.2 tons per year. Sulfur dioxide emissions shall not exceed 1.6 pounds per mmBtu of actual heat input. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-17-10(B)(1), and 3745-17-10(C)(1).
	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 pound per mmBtu of

	actual heat input when burning natural gas and/or #2 fuel oil.
OAC rule 3745-17-10(C)(1)	Particulate emissions shall not exceed 0.102 pound per mmBtu of actual heat input when burning #6 fuel oil and/or by-product fuel. This limit was calculated from curve P-1 of Figure I. See section A.I.2.a below.
OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established by OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a In accordance with OAC rule 3745-17-10(B), this particulate emission limitation is based on the combined total heat input for emissions units B004, B005, B006, B009, and B010 which are physically or operationally united.

2.b The heavy hydrocarbon and light hydrocarbon by-product fuels are hazardous waste; therefore, this emissions unit is subject to the requirements of 40 CFR Part 266.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall collect and analyze samples of the light hydrocarbon waste fuels burned in this emissions unit on at least a monthly basis. Each light hydrocarbon waste fuel batch is defined by the results of the most recent sample. No light hydrocarbon waste fuel will be burned between the time the sample is taken and the time the sample results are received.

   The permittee shall collect and analyze samples of the heavy hydrocarbon waste fuels burned in this emissions unit for each batch collected in the heavy hydrocarbon waste fuel storage tanks. Each heavy hydrocarbon waste fuel batch is defined by the results of its batch sample. A new heavy hydrocarbon waste fuel batch will not be burned until the time the sample results of that batch are received.

Each sample shall be analyzed in accordance with the procedures specified in the following test methods:

a. ASTM D2382 to determine heating value (Btu/lb);

b. ASTM D482 to determine ash content (weight %); and

c. ASTM D129 to determine sulfur content (weight %).

Alternative test methods may be used with prior approval from the Ohio EPA.

The permittee may use fuel analysis reports from the supplier to determine the heating value, ash content, and sulfur content of natural gas, #2 fuel oil, and #6 fuel oil.

Each natural gas fuel batch is defined by the most recent analysis received from the supplier. These analyses must be obtained at least every quarter. Each #2 fuel oil batch and #6 fuel oil batch is defined by the analysis for the most recent shipment of oil received.

2. The permittee shall maintain at least monthly records of the following for each fuel batch-firing scenario burned in this emissions unit:

a. the quantity of each fuel burned (pounds of hydrocarbon fuels, standard cubic feet of natural gas, pounds of fuel oil);

b. the heat content of each fuel (Btu per pound, Btu per standard cubic feet, Btu per pound);

c. the ash content of each fuel (weight %);

d. the sulfur content of each fuel (weight % or gr/100 dscf);

e. The start time and date of each fuel batch firing scenario; and

f. The end time and date of each fuel batch firing scenario.

A fuel batch-firing scenario is defined as a combination of fuels burned with specific characteristics determined by the sampling results of Section A.III.1 above. Therefore, a new fuel batch-firing scenario will begin when a new fuel batch analysis is received, as defined in Section A.III.1, and/or when there is a change in the fuel or combination of fuels burned in the emissions unit.

3. The permittee shall calculate and maintain monthly records of the average pounds of particulate emissions per MMBtu for each fuel batch-firing scenario.

The calculation shall be performed as described below.

a. Calculate the particulate emission contribution from each fuel burned, in pounds of particulate per fuel batch-firing scenario.

b. Calculate the total amount of particulate emitted per fuel batch-firing scenario by summing the contribution of each fuel burned.

c. Calculate the heat input for each fuel burned, in MMBtu per fuel batch-firing scenario.

d. Calculate the total heat input per fuel batch-firing scenario that was provided by the combined fuels by summing the contribution for each fuel burned.

e. Calculate the average emissions, in pounds of particulate per MMBtu per fuel batch-firing scenario of the combined fuels.

4. The permittee shall calculate and maintain monthly records of the average pounds of sulfur dioxide emissions per MMBtu for each fuel batch-firing scenario.

The calculation shall be performed as described below.

a. Calculate the sulfur dioxide emission contribution from each fuel burned, in pounds of sulfur dioxide per fuel batch-firing scenario.

b. Calculate the total amount of sulfur dioxide emitted per fuel batch-firing scenario by summing the contribution of each fuel burned.

c. Calculate the heat input for each fuel burned, in MMBtu per fuel batch-firing scenario.

d. Calculate the total heat input per fuel batch-firing scenario that was provided by the combined fuels by summing the contribution for each fuel burned.

e. Calculate the average emissions, in pounds of sulfur dioxide per MMBtu per fuel batch-firing scenario of the combined fuels, .

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 # 07-240, issued on 12/4/91 and modified on 08/28/01: 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 include an identification of each fuel batch scenario during which the average sulfur dioxide emission rate exceeded 0.6 pound per mmBtu, and the actual sulfur dioxide emission rate for each such period.

2. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each fuel batch scenario during which the average particulate emission rate exceeded 0.020 pound per mmBtu when burning natural gas and/or #2 fuel oil or 0.102 pound per mmBtu when burning #6 fuel oil and/or by-product fuel, and the actual particulate emission rate for each such period.

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 #07-240, issued on 12/4/91 and modified on 08/28/01: 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 methods:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 1.0 pound per hour.

Applicable Compliance Method:

Compliance with the hourly emissions limit shall be demonstrated by multiplying the VOC emission factor for the worst case fuel times the maximum quantity of fuel fired per hour. Natural gas was determined to be the worst case fuel. The emission factor for each fuel is listed below:

i. 5.5 pounds of VOC per million standard cubic feet of natural gas burned (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.4, Table 1.4-2, dated July, 1998)

ii. 0.20 pound of VOC per thousand gallons of #2 fuel oil burned (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998)

iii. 0.28 pound of VOC per thousand gallons of #6 fuel oil burned (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998)

iv. 0.0000284 pound of VOC per pound of light hydrocarbon fuel burned, a #2 fuel oil equivalent fuel (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998)

v. 0.0000355 pound of VOC per pounds of heavy hydrocarbon fuel burned, a #6 oil equivalent fuel (obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.3, Table 1.3-3, dated September, 1998)

1a. If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18 or 25.

1b. Emission Limitation -

Volatile organic compound emissions shall not exceed 1.0 pound per hour and 4.2 tons per year.

Applicable Compliance Method:

The ton per year emission limitation was developed by multiplying the pound per hour limit by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Therefore, provided compliance is shown with the hourly emission limit, compliance will also be shown with the annual limitation.

1c. Emission Limitation -

Visible particulate emissions from the Boiler 2001-UE stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

1d. Emission Limitation -

Particulate emissions shall not exceed 0.020 pound per mmBtu of actual heat input when burning natural gas and/or #2 fuel oil.
Particulate emissions shall not exceed 0.102 pound per mmBtu of actual heat input when burning #6 fuel oil or by-product fuel.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(9).

1e. Emission Limitation -

Sulfur dioxide emissions shall not exceed 1.6 pounds per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, and 6 and the procedures and methods required in OAC rule 3745-18-04(E)(1).

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

   a. The emission testing shall be conducted within 12 months of permit issuance.

   b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and sulfur dioxide.

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for sulfur dioxide, Method 6 or 6e of 40 CFR Part 60, Appendix A. Alternative U. S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

   d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth local air agency.

   Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the 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.

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 #07-240, issued on 12/4/91 and modified on 08/28/01: 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

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: 2001-UF (B014)
Activity Description: Natural Gas Fired Boiler with low NOx burner

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
281 mmBtu per hour natural gas fired boiler (2001-UF) with low NOx burners and flue gas recirculation	OAC rule 3745-31-05(A)(3) (PTI 07-451)	Particulate emissions shall not exceed 67.68 pounds per day and 6.2 tons per year. Sulfur dioxide emissions shall not exceed 0.17 pound per hour and 0.74 ton per year. Carbon monoxide emissions shall not exceed 515.00 pounds per day and 94.0 tons per year. Nitrogen oxides emissions shall not exceed 539.52 pounds per day and 98.5 tons per year. Volatile organic compound emissions shall not exceed 5.98 tons per year. The requirements of this rule also include compliance with the requirements of OAC rules

	3745-17-07(A), 3745-17-10(B)(1), 40 CFR Part 52.21, and OAC rule 3745-31-11 through 3745-31-20.
40 CFR Part 52.21 OAC rule 3745-31-11 through 3745-31-20	Nitrogen oxides emissions shall not exceed 0.08 pound per mmBtu as a rolling, 30-day average. Volatile organic compound emissions shall not exceed 33.6 pounds per day.
40 CFR Part 60, Subpart Db	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR 52.21 and OAC rule 3745-31-11 through 3745-31-20. See section 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.
OAC rule 3745-17-10(B)(1)	Particulate emissions shall not exceed 0.020 pound per mmBtu of actual heat input.
OAC chapter 3745-14	See section A.VI below.

2. Additional Terms and Conditions

2.a [40 CFR 60.45b(h)]
The nitrogen oxide standards under 40 CFR Part 60.44b shall apply at all times including periods of startup, shutdown, or malfunction.

2.b [40 CFR 60.45b(i)]
Compliance with the nitrogen oxides emission limitation established pursuant to 40 CFR Part 60, Subpart Db shall be determined on a rolling, 30-day average basis.

II Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

III Monitoring and/or Recordkeeping

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. [40 CFR 60.48b(b) & (d)]
The permittee shall install, operate, and maintain equipment to continuously monitor and record nitrogen oxides emissions from this emissions unit in pounds per mmBtu. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

   [40 CFR 60.48b(c)]
The permittee shall operate the continuous emissions monitoring system (CEMS) and record data during all periods of operation except for continuous monitoring systems breakdowns and repairs. Data shall be recorded during calibration checks, zero adjustments, and span adjustments.

   [40 CFR 60.48b(e)(2)]
The permittee shall operate the CEMS with a NOx span value of 500 ppm.

3. Each CEMS consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

4. The permittee shall maintain a certification letter from the Ohio EPA documenting that the NOx CEMS has been certified in accordance with the requirements of 40 CFR Part 60. The letter of certification shall be made available to the Director upon request.

5. [40 CFR 60.48b(f)]
When NOx emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, the permittee shall obtain emissions data by using standby monitoring systems, U. S. EPA Method 7 or 7a of 40 CFR Part 60, Appendix A, or other approved reference methods to provide data for a minimum of 75% of the operating hours in a day, in at least 22 out of 30 successive days of operation.

6. [40 CFR 60.49b(g)]
The permittee shall maintain records of the following data obtained by the NOx CEMS for each operating day:

a. calendar date;

b. emissions of nitrogen oxides in pounds per mmBtu actual heat input on an hourly average basis;

c. emissions of nitrogen oxides in pounds per mmBtu actual heat input on a rolling, 30-day average basis;

d. identification of all days where the rolling, 30-day average NOx emission rate exceeds the 0.08 pound per mmBtu emission limitation, the reason for the excess emissions and a description of the corrective actions taken;

e. identification of operating days for which sufficient NOx emissions data has not been obtained, the reason for not obtaining sufficient data, and a description of the corrective actions taken;

f. identification of all periods of time which emissions data has been excluded from the calculation of the average emission rate and the reason for excluding the data;

g. a record of the "F" factor used in the calculation of the rolling, 30-day average NOx emission rate and the method used to determine the "F" factor;

h. identification of the times when NOx concentration exceeded the span of the continuous monitoring system;

i. description of any modifications to the CEMS that could affect the ability of the continuous monitoring system to comply with Performance Specifications 2 or 3 of 40 CFR Part 60, Appendix B;

j. results of daily CEMS drift tests and quarterly accuracy assessments as required by Procedure 1 of 40 CFR Part 60, Appendix F; and

k. results of daily zero/span calibration checks and magnitude of manual calibration adjustments.

7. [40 CFR 60.49b(d)]
The permittee shall record and maintain records of the amounts of natural gas combusted during each day and calculate the annual capacity factor natural gas for the reporting period. The annual capacity factor is determined on a rolling, 12-month average basis with a new annual capacity factor calculated at the end of each calendar month.

8. 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 # 07-451, issued on 2/8/98 and modified on xx/xx/xx:

A.III.1 through A.III.7. 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 deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. [40 CFR 60.49(i)]
The permittee shall submit a quarterly report containing the information included in section A.III.6 above. The quarterly report shall be postmarked within 30 days of the end of the last calendar month of the quarter.

3. The quarterly report shall also document any continuous NOx CEMS downtime while the emissions unit was on line (date, time, duration and reason), along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - 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 #07-451, issued on 2/8/98 and modified on xx/xx/xx: 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:

1a. Emission Limitation -

Particulate emissions shall not exceed 67.68 pounds per day.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the particulate emission factor of 1.928 pounds of particulate per mmscf of natural gas fired, times the maximum quantity of natural gas fired per hour, in mmscf, times 24 hours per day. The particulate emission factor was calculated from the results of the August, 1999 stack test.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

1b. Emission Limitation -

Particulate emissions shall not exceed 6.2 tons per year.

Applicable Compliance Method:

Compliance with the ton per year emission limitation shall be demonstrated by multiplying the particulate emission factor of 1.928 pounds of particulate per MMscf of natural gas fired, times the maximum quantity of natural gas fired per year, in MMscf, and then dividing by 2,000 pounds per ton. The particulate emission factor was calculated from the results of the August 1999 stack test.

1c. Emission Limitation -

Sulfur dioxide emissions shall not exceed 0.17 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the SO2 emission factor of 0.6 pound per mmscf by the maximum quantity of natural gas fired in mmscf per hour. The SO2 emission factor was obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.4, Table 1.4-2, dated July, 1998.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 or 6e.

1d. Emission Limitation -

Sulfur dioxide emissions shall not exceed 0.74 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1e. Emission Limitation -

Carbon monoxide emissions shall not exceed 515.00 pounds per day.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the CO emission factor of 84 pounds per mmscf by the maximum quantity of natural gas fired, in mmscf per hour, times 24 hours per day. The CO emission factor was obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.4, Table 1.4-1, dated February, 1998.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

1f. Emission Limitation -

Carbon monoxide emissions shall not exceed 94.0 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable daily limitation by 365 days per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the daily emission limitation is maintained.

1g. Emission Limitation -

Nitrogen oxide emissions shall not exceed 539.52 pounds per day.

Applicable Compliance Method:

The pound per day emission limitation was developed by multiplying the 0.08 pound per mmBtu limit by the maximum rating of the boiler, 281 mmBtu per hour, times 24 hours per day. Therefore, provided compliance is shown with the pound per mmBtu emissions limit, compliance will also be shown with the daily limitation.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7 or 7E.

1h. Emission Limitation -

Nitrogen oxide emissions shall not exceed 98.5 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable daily limitation by 365 days per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the daily emission limitation is maintained.

1i. Emission Limitation -

Volatile organic compound emissions shall not exceed 33.6 pounds per day.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the VOC emission factor of 5.5 pounds per mmscf by the maximum quantity of natural gas fired in mmscf per hour, times 24 hours per day. The VOC emission factor was obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.4, Table 1.4-2, dated July, 1998.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18 or 25.

1j. Emission Limitation -

Volatile organic compound emissions shall not exceed 5.98 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable daily limitation by 365 days per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the daily emission limitation is maintained.

1k. Emission Limitation -

Nitrogen oxide emissions shall not exceed 0.08 pound per mmBtu as a rolling, 30-day average.

Applicable Compliance Method:

Compliance with the nitrogen oxides pound per mmBtu emission limitation shall be determined on a continuous basis through the use of a rolling, 30-day average emission rate calculated from the hourly average data obtained by the continuous nitrogen oxides CEMS. A new rolling, 30-day average emission rate is calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7 or 7E.

1l. Emission Limitation -

Visible particulate emissions from the 2001-UF Boiler stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

1m. Emission Limitation -

Particulate emissions shall not exceed 0.02 pound per mmBtu actual heat input.

Applicable Compliance Method:

Compliance shall be demonstrated by dividing the particulate emission factor of 1.928 pounds per mmscf of natural gas by the natural gas heating content of 1,100 mmBtu per mmscf. The particulate emission factor was calculated from the results of the August, 1999 stack test.

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 #07-451, issued on 2/8/98 and modified on xx/xx/xx: 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

1. Nitrogen Oxides (NOx) Budget Trading Program

   OAC Chapter 3745-14

1a. Office of Regulatory Information System Facility Code - 880070

1b. The following regulated non-electrical generating unit is subject to the applicable requirements specified in OAC Chapter 3745-14 and the annual NOx allowance allocations assigned to the facility.

1c. The emissions unit identified in Section A.2.b above is a NOx budget unit under OAC rule 3745-14-01(C)(1).
[OAC rule 3745-14-01(C)(1)(a)(i)]

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

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

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

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

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

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

1j. Except as provided below, the Director shall revise the NOx budget permit, as necessary, in accordance with OAC rule 3745-77-08.

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

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

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

i. the account certificate of representation for the NOx authorized account representative for the NOx budget unit and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with paragraph (D) of OAC rule 3745-14-02, provided that the certificate and documents shall be retained on site at the

source beyond such five-year period until such documents are superseded because of the submission of a new account certificate or representation changing the NOx authorized account representative;

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

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

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

1m. The permittee shall operate and maintain equipment to continuously monitor and record nitrogen oxides emissions from these emissions units in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75.

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software. This includes all systems required to monitor the NOx emission rate, NOx concentration, heat input rate, and stack flow rate, in accordance with 40 CFR Parts 75.71 and 75.72.

The permittee shall comply with the initial and re-certification procedures of 40 CFR Part 75. The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous nitrogen oxides monitoring system has been certified in accordance with 40 CFR Part 75. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous nitrogen oxides monitoring system: emissions of nitrogen oxides in lb/mmBtu actual heat input on an hourly average basis, emissions of nitrogen oxides in lbs/hr, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

Whenever the monitoring system fails to meet the quality assurance or data validation requirements of 40 CFR Part 75, data shall be substituted using the applicable procedures in Subpart D, Appendix D, or Appendix E of 40 CFR Part 75.
[OAC rules 3745-14-01(E)(2)(a), 3745-14-01(E)(5)(a)(ii), 3745-14-08(A)(2)(a) through (A)(2)(d), 3745-14-08(B)(1), and 3745-14-08(C)(1)]

1n. The permittee shall comply with the monitoring plan requirements of 40 CFR Part 75.62, except that the monitoring plan shall also include all of the information required by Subpart H of 40 CFR Part 75.

[OAC rule 3745-14-08(E)(2)(a)]

1o. The NOx authorized account representative of the NOx budget unit shall submit the reports and compliance certifications required under the NOx budget trading program, including those under OAC rules 3745-14-04 and 3745-14-08, to the Director and Administrator.
[OAC rule 3745-14-01(E)(5)(b)]

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

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

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

1q. The NOx authorized account representative shall submit quarterly reports that include all of the data and information required in Subpart H of 40 CFR Part 75 for each NOx budget unit (or group of units using a common stack) and the data and information in Subpart G of 40 CFR Part 75. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30 and October 30 of each year and shall be submitted in the manner specified in Subpart H of 40 CFR Part 75 and 40 CFR Part 75.64.
[OAC rules 3745-14-08(E)(4)(a) and 3745-14-08(E)(4)(c)(i)]

1r. The NOx authorized account representative shall submit to the Administrator a compliance certification in support of each quarterly report based on a reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The compliance certification shall state that:

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

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

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

1t. For each control period in which one or more NOx budget units at a source are subject to the NOx budget emission limitation, the NOx authorized account representative of the source shall submit to the Director and the Administrator, by November 30 of that year, a compliance certification report for each source covering all such units.

The NOx authorized account representative shall include the following elements in the compliance certification report, in a format prescribed by the Administrator, concerning each unit at the source and subject to the NOx budget emission limitation for the control period covered by the report:

i. identification of each NOx budget unit;

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

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

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

1u. In the compliance certification report under Section A.2.t.iv above, the NOx authorized account representative shall certify, based upon reasonable inquiry of those persons with the primary responsibility for operating the source and the NOx budget units at the source in compliance with the NOx budget trading program, whether each NOx budget unit for which the compliance certification is submitted was operated during the calendar year covered by the report in compliance with the requirements of the NOx budget trading program applicable to the unit, including all the following:

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

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

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

iv. whether the facts that form the basis for certification under OAC rule 3745-14-08 of each monitor at the unit or group of units (including the unit) using a common stack, or for using an excepted monitoring method or alternative monitoring method approved under OAC rule 3745-14-08, if any, have changed.

1u. If a change is required to be reported under Section A.2.u.iv above, specify the nature of the change, the reason for the change, when the change occurred, and how the unit's compliance status was determined subsequent to the change, including what method was used to determine emissions when a change mandated the need for monitor re-certification.
[OAC rule 3745-14-04(A)(3)]

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

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

[OAC rule 3745-14-01(E)(2)(b)]

1x. The permittee shall develop and maintain a written quality assurance/quality control plan for each continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on-site and available for inspection during regular office hours.
[OAC rules 3745-14-08(A)(2)(c) and 3745-14-08(A)(2)(d)]

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: LC02/LC03 (F001)
Activity Description: Poly/Epoxy BPA Railcar Loading

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
polycarbonate grade bisphenol A railcar loading with baghouse (F-405) and epoxy grade bisphenol A railcar loading with baghouse (F-605)	OAC rule 3745-31-05(A)(3) (PTI 07-264)	Particulate emissions from each baghouse shall not exceed 0.03 grain per dry standard cubic foot of exhaust gases. Particulate emissions from the two baghouses, combined, shall not exceed 2.65 tons per year. Visible emissions from the baghouse outlet shall not exceed 10% opacity, as a 6-minute average.
	OAC rule 3745-17-07(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).
	OAC rule 3745-17-11(B)	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. Additional Terms and Conditions

2.a None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

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 # 07-264, issued on 3/18/92: 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 semiannual written reports that (a) identify all days during which any visible particulate 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 Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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 #07-264, issued on 3/18/92: 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 section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1a. Emission Limitation -

Particulate emissions from each baghouse shall not exceed 0.03 grain per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

1b. Emission Limitation -

Visible emissions from each baghouse outlet shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method:

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

1c. Emission Limitation -

Particulate emissions from the two baghouses, combined, shall not exceed 2.65 tons per year.

Applicable Compliance Method:

The tons per year emission limitation was developed by multiplying the particulate emission rate, 0.03 grain per dscf, times the maximum airflow from both baghouses (1,070 cf/m for F-405 and 1,267 cf/m for F-605) times 60 minutes per hour divided by 7,000 grains per pound times the maximum potential operating schedule of 8,760 hours per year, and dividing by 2,000 pounds per ton. Therefore, provided compliance is shown with the 0.03 grain per dscf limitations, compliance will also be shown with the annual limitation.

2. The permittee shall conduct, or have conducted, emission testing for the F-405 and F-605 baghouses in accordance with the following requirements:

   a. The emission testing shall be conducted within 12 months of permit expiration.

   b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U. S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

   d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth local air agency.

   Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the 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.

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 #07-264, issued on 3/18/92: 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

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

None

IV Reporting Requirements

None

VI Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: LS01/LS02 (F002)
Activity Description: Poly/Epoxy BPA Bagging Operations and Vacuum Sweeper System

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
polycarbonate and epoxy grade bisphenol A bagging operations with a baghouse (A-1175) and a warehouse sweeper with a cyclone (A-1103)	OAC rule 3745-31-05(A)(3) (PTI 07-264)	Particulate emissions from the baghouse shall not exceed 0.03 grain per dry standard cubic foot of exhaust gases. Particulate emissions from the baghouse shall not exceed 4.0 tons per year. Visible emissions from the baghouse outlet shall not exceed 10% opacity, as a 6-minute average.
	OAC rule 3745-17-07(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).
	OAC rule 3745-17-11(B)	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. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

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 # 07-264, issued on 3/18/92: 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 semiannual written reports that (a) identify all days during which any visible particulate 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 Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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 #07-264, issued on 3/18/92: 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 section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1a. Emission Limitation -

Particulate emissions from the baghouse shall not exceed 0.03 grain per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

1b. Emission Limitation -

Visible emissions from the baghouse outlet shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method:

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

1c. Emission Limitation -

Particulate emissions from the baghouse shall not exceed 4.0 tons per year.

Applicable Compliance Method:

The tons per year emissions limitation was developed by multiplying the particulate emission rate, 0.03 grain per dscf, times the maximum airflow from the baghouse (3,500 cf/m) times 60 minutes per hour divided by 7,000 grains per pound times the maximum potential operating schedule of 8,760 hours per year, and dividing by 2,000 pounds per ton. Therefore, provided compliance is shown with the 0.03 grain per dscf limitations, compliance will also be shown with the annual limitation.

2. The permittee shall conduct, or have conducted, emission testing for the baghouse in accordance with the following requirements:

a. The emission testing shall be conducted within 12 months of permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U. S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the 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.

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 #07-264, issued on 3/18/92: 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

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: LT03 (F003)
Activity Description: Poly BPA Truck Loading

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
polycarbonate grade bisphenol A tank truck loading with a baghouse (F-406)	OAC rule 3745-31-05(A)(3) (PTI 07-326)	Particulate emissions from the baghouse shall not exceed 0.030 grain per dry standard cubic foot of exhaust gases. Visible emissions from the baghouse outlet shall not exceed 10% opacity, as a 6-minute average.
	OAC rule 3745-17-07(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).
	OAC rule 3745-17-11(B)	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. Additional Terms and Conditions

2.a None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

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 # 07-326, issued on 03/17/93 and modified on 05/15/01: 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 semiannual written reports that (a) identify all days during which any visible particulate 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 Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent or as more stringent than the reporting requirements contained in Permit to Install #07-326, issued on 3/18/92: 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 section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1a. Emission Limitation -

Visible emissions from the baghouse outlet shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method:

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

1b. Emission Limitation -

Particulate emissions from the baghouse shall not exceed 0.030 grain per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

2. The permittee shall conduct, or have conducted, emission testing for the F-406 baghouse in accordance with the following requirements:

a. The emission testing shall be conducted within 12 months of permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U. S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the 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.

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 # 07-326, issued on 03/18/92: 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

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: LT06 (F004)
Activity Description: BPA Powerliner Baghouse

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
polycarbonate grade bisphenol A powerliner loading with a baghouse (F-1101)	OAC rule 3745-31-05(A)(3) (PTI 07-00498)	Visible particulate emissions from the baghouse outlet shall not exceed 10% opacity. Particulate emissions from the baghouse shall not exceed 0.030 grain per dry standard cubic foot of exhaust gases and 3.2 tons per year.
	OAC rule 3745-17-07(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).
	OAC rule 3745-17-11(B)	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. Additional Terms and Conditions

2.a None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

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 # 07-498, issued on 11/16/00 and modified on 05/15/01: 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 semiannual written reports that (a) identify all days during which any visible particulate 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 Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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 #07-498, issued on 11/16/00 and modified on 5/15/01: 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 section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1a. Emission Limitation -

Visible particulate emissions from the baghouse outlet shall not exceed 10% opacity, as a 6 - minute average.

Applicable Compliance Method:

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

1b. Emission Limitation -

Particulate emissions from the baghouse shall not exceed 0.030 grain per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

1c. Emissions Limitation -

Particulate emissions from the baghouse shall not exceed 3.2 tons per year.

Applicable Compliance Method:

The tons/year emissions limitation was developed by multiplying the particulate emission rate, 0.03 gr/dscf, times the maximum airflow from the baghouse (2,871 cf/m), times 60 minutes/hour divided by 7,000 grains/pound times the maximum potential operating schedule of 8760 hours/year, and dividing by 2000 pounds/ton. Therefore, provided compliance is shown with the gr/dscf limitation, compliance will also be shown with the annual limitation.

2. The permittee shall conduct, or have conducted, emission testing for the F-1101 baghouse in accordance with the following requirements:

a. The emission testing shall be conducted within 12 months of permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): U. S. EPA Method 5, 40 CFR Part 60, Appendix A. Alternative U. S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the 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.

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 #07-498, issued on 11/16/00 and modified on 05/15/01: 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

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: LC01 (J004)
Activity Description: Phenol/Acetone/AMS Railcar Loading

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
railcar loading of phenol, acetone, and alphamethylstyrene top load, splash fill	OAC rule 3745-31-05(A)(3) (PTI 07-451)	Volatile organic compound emissions shall not exceed 12.94 tons per year. Acetone emissions shall not exceed 303.0 tons per year.
	40 CFR Part 63, Subparts F, G, and H	See sections A.I.2 and A.III.1 below.

2. Additional Terms and Conditions

2.a In accordance with Section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. For this group 2 transfer rack, the permittee shall comply with the record keeping requirements of section A.2.j of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in Section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of Section A.3.zb of Part II - Specific Facility Terms and Conditions.

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 #07-00451, issued 02/08/98: 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 requirements in the Permit to Install.

IV Reporting Requirements

1. The permittee shall submit semi-annual reports for the LDAR program in accordance with the requirements of Section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

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 #07-00451, issued 02/08/98: 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 section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 12.94 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the equations and procedures obtained from AP-42, Volume 1, 5th Edition, Chapter 5, Section 5.2, dated January, 1995 as summarized below:

i. phenol: multiply the annual throughput of the loading rack in gallons per year times the constant 0.01246 times the saturation factor of 1.45 times the true vapor pressure of phenol, 0.0626 psia, times the molecular weight of phenol vapors, 94.11 pound per pound-mole, divided by the temperature of the phenol loaded, 590 degrees Rankin divided by 2,000 pounds per ton; and

ii. alphamethylstyrene (AMS): multiply the annual throughput of the loading rack in gallons/year times the constant 0.01246 times the saturation factor of 1.45 times the true vapor pressure of AMS, 0.0138 psia, times the molecular weight of AMS vapors, 118.18 pound/pound-mole, divided by the temperature of the AMS loaded, 515 degrees Rankin divided by 2,000 pounds/ton.

1b. Emission Limitation -

Acetone emissions shall not exceed 303.0 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the equations and procedures obtained from AP-42, Volume 1, 5th Edition, Chapter 5, Section 5.2, dated January, 1995 as summarized below:

i. acetone: multiply the annual throughput of the loading rack in gallons per year times the constant 0.01246 times the saturation factor of 1.45 times the true vapor pressure of acetone, 2.5512 psia, times the molecular weight of acetone vapors, 58.08 pound per pound-mole, divided by the temperature of the acetone loaded, 515 degrees Rankin divided by 2,000 pounds per ton.

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 #07-00451, issued 02/08/98: 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: LT01 (J006)
Activity Description: Phenol/Acetone/AMS Truck Loading

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
truck loading of phenol, acetone, and alphamethylstyrene top load, splash fill	OAC rule 3745-31-05(A)(3) (PTI 07-451)	Volatile organic compound emissions shall not exceed 12.94 tons per year. Acetone emissions shall not exceed 303.0 tons per year.
	40 CFR Part 63, Subparts F, G, and H	See sections A.I.2 and A.III.1 below.

2. Additional Terms and Conditions

2.a In accordance with Section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. For this group 2 transfer rack, the permittee shall comply with the record keeping requirements of section A.2.j of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in Section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of Section A.3.zb of Part II - Specific Facility Terms and Conditions.

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 #07-00451, issued 02/08/98: 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 requirements in the Permit to Install.

IV Reporting Requirements

1. The permittee shall submit semi-annual reports for the LDAR program in accordance with the requirements of Section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

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 #07-00451, issued 02/08/98: 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 section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 12.94 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the equations and procedures obtained from AP-42, Volume 1, 5th Edition, Chapter 5, Section 5.2, dated January, 1995 as summarized below:

i. phenol: multiply the annual throughput of the loading rack in gallons per year times the constant 0.01246 times the saturation factor of 1.45 times the true vapor pressure of phenol, 0.0626 psia, times the molecular weight of phenol vapors, 94.11 pound per pound-mole, divided by the temperature of the phenol loaded, 590 degrees Rankin divided by 2,000 pounds per ton; and

ii. alphamethylstyrene (AMS): multiply the annual throughput of the loading rack in gallons per year times the constant 0.01246 times the saturation factor of 1.45 times the true vapor pressure of AMS, 0.0138 psia, times the molecular weight of AMS vapors, 118.18 pound per pound-mole, divided by the temperature of the AMS loaded, 515 degrees Rankin divided by 2,000 pounds per ton.

1b. Emission Limitation -

Acetone emissions shall not exceed 303.0 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the equations and procedures obtained from AP-42, Volume 1, 5th Edition, Chapter 5, Section 5.2, dated January, 1995 as summarized below:

i. acetone: multiply the annual throughput of the loading rack in gallons per year times the constant 0.01246 times the saturation factor of 1.45 times the true vapor pressure of acetone, 2.5512 psia, times the molecular weight of acetone vapors, 58.08 pound per pound-mole, divided by the temperature of the acetone loaded, 515 degrees Rankin divided by 2,000 pounds per ton.

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 #07-00451, issued 02/08/98: 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: LC04 (J008)
Activity Description: Cumene Railcar Unloading

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
cumene railcar unloading	OAC rule 3745-31-05(A)(3) (PTI 07-00508)	volatile organic compound emissions from fugitive equipment leaks shall not exceed 0.53 pound per hour and 2.31 tons per year.
	40 CFR Part 63, Subparts F, H	See section A.I.2 below.

2. Additional Terms and Conditions

2.a The hourly and annual emissions limits were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with this limit.

2.b In accordance with Section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in Section A.3.za of Part II - Specific Facility Terms and Conditions.

2. The permittee shall maintain records for the LDAR program in accordance with the requirements of Section A.3.zb of Part II - Specific Facility Terms and Conditions.

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 #07-00508, issued 09/25/01: 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 requirements in the Permit to Install

IV Reporting Requirements

1. The permittee shall submit semi-annual reports for the LDAR program in accordance with the requirements of Section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

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 #07-00508, issued 09/25/01: 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 section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1a. Emission Limitation -

Volatile organic compound emissions from fugitive equipment leaks shall not exceed 0.53 pound per hour and 2.31 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the emission rates from each type of equipment in VOC service within the process. Equipment types include: valves, pump seals, pressure relief valves, connectors, open ended lines, and sampling connections. For each equipment type use the SOCMI average emission factors (EPA-453/R-93-026, Table 2-1, dated 6/93) and the following equation:

VOC emission rate from a given equipment type (pounds/hour) = average emission factor (pounds/hour/equipment type) times the average weight fraction of VOC in the stream times the number of pieces of the equipment type in the stream times 8,760 hours/year divided by 2,000 pounds/ton.

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: Cumene Oxidation (P001)
Activity Description: Cumene Oxidation Plant

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
cumene oxidation plant with a vent condenser (3231-C) and thermal oxidizer (2007-L)	OAC rule 3745-31-05(A)(3) (PTI 07-030)	Best available technology was determined to be compliance with the applicable rules at the time of permit issuance.
	40 CFR Part 63, Subparts F, G, and H	See sections A.I.2.a through A.I.2.c below.
	40 CFR Part 60, Subpart III	See section A.I.2.f below.
	40 CFR Part 60, Subpart VV	See section A.I.2.d below.
	OAC rule 3745-21-09(DD)	See section A.I.2.e below.
	OAC rule 3745-21-09(EE)	See sections A.I.2.g and A.I.2.h below.
	OAC rule 3745-17-07(A)	See section A.I.2.i below.
	OAC rule 3745-17-11(B)	See section A.I.2.j below.
	OAC rule 3745-18-06	See section A.I.2.k below.

2. Additional Terms and Conditions

2.a In accordance with section A.2.c.ii of Part II - Specific Facility Terms and Conditions, for all Group 1 process vent streams, the emissions of total organic HAPs shall be reduced by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. The emission reduction or concentration shall be calculated on a dry basis, corrected to 3% oxygen.

2.b In accordance with section A.3 of Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.The leak detection and repair program pertains to any type of 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 HAP service within this emissions units.

2.c In accordance with 40 CFR Part 60, Subpart VV, the permittee shall maintain a LDAR program for equipment in VOC service within this emissions unit.

The LDAR program pertains to any type of pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, flange, connector, closed vent system, and any other device or system in volatile organic compound service within this emissions unit.

For equipment which is subject to the provisions of 40 CFR Part 60, Subpart VV and is also subject to section A.3 of Part II - Specific Facility Terms and Conditions, the permittee is required only to comply with section A.3 of Part II. The provisions in 40 CFR 63.1(a)(3) of Subpart A do not alter the provisions in this section.

For equipment in VOC service which is subject to 40 CFR Part 60, Subpart VV but is not subject to section A.3 of Part II - Specific Facility Terms and Conditions, the permittee has elected to apply section A.3 of Part II to all such equipment in the process unit, in accordance with section A.3.d of Part II - Specific Facility Terms and Conditions. All VOC in such equipment shall be considered, for purposes of applicability and compliance with section A.3 of Part II - Specific Facility Terms and Conditions as if it were organic HAP. Compliance with the provisions of section A.3 of Part II - Specific Facility Terms and Conditions, in the manner described in this section, shall be deemed to constitute compliance with 40 CFR Part 60, Subpart VV.

2.d In accordance with OAC rule 3745-21-09(DD), the permittee shall maintain a LDAR program for equipment in VOC service within this emissions unit.

In lieu of complying with the requirements specified in paragraphs (DD)(2) to (DD)(10) of OAC rule 3745-21-09(DD), the permittee shall comply with the equivalent requirement outlined in section A.3 of Part II - Specific Facility Terms and Conditions.

2.e The following Group 1 process vents are subject to the provisions of 40 CFR 60, Subpart III but are required to comply only with the terms and conditions of sections A.1, A.2 and A.3 of Part II - Specific Facility Terms and Conditions:

Air oxidation reactor train and its' combined spent air vent stream (201-DA, 201-DB, 201-DC, 201-DD, 201-DE, 201-DF, 201-DG, 201-DH, 201-DJ, 201-DK, 201-DL, and 201-DM)

Oxidation Product Surge Drum (208-F)

2.f [OAC rule 3745-21-09(EE)(1)]
Except where exempted under OAC rule 3745-21-09(EE)(2), the permittee shall vent process vent streams from air oxidation processes, producing a chemical listed in Appendix A of OAC rule 3745-21-09, to a combustion device which:

i. reduces the VOC emissions vented to it with an efficiency of at least 98 percent by weight; or

ii. emits a VOC concentration less than 20 ppm by volume, dry basis.

2.g [OAC rule 3745-21-09(EE)(2)(b)]
Any process vent stream or combination of process vent streams which maintain a total resource effectiveness (TRE) value greater than 1.0 shall be exempt from the requirements of OAC rule 3745-21-09(EE)(1). If an air oxidation process has more than one process vent stream, the TRE shall be based upon a combination of the process vent streams. The TRE shall be calculated in accordance with OAC rule 3745-21-09(EE)(3).

2.h The emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

2.i The uncontrolled mass rate of particulate emissions from the thermal oxidizer is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table 1 of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.

2.j The thermal oxidizer is fueled with natural gas and process vent gas only and has no process weight as defined in OAC rule 3745-18-01(B)(13). Therefore, this emissions unit is exempt from the emissions limitation established in OAC rule 3745-18-06(E).

II Operational Restrictions

1. In accordance with the permittee's permit application, the permittee is operating by routing the Group 1 process vents from this emissions unit to a thermal oxidizer in order to comply with the percent reduction requirement or concentration limit specified in section A.2.c.ii of Part II - Specific Facility Terms and Conditions. The minimum firebox temperature of the thermal oxidizer shall be 1,450 degrees Fahrenheit (788 degrees Celsius) as a daily average.

2. The permittee shall burn only process vent gas and/or natural gas in the thermal oxidizer (2007-L).

3. Each surge control vessel or bottoms receiver tank which meets one of the conditions listed in section A.3.q of Part II - Specific Facility Terms and Conditions shall be equipped with a closed vent system that routes the organic vapors from the surge control vessel or bottoms receiver tank back to the process or to a control device that complies with the requirements of section A.3.s of Part II - Specific Facility Terms and Conditions or shall be equipped with a fixed roof and an internal floating roof or an external floating roof.

   In accordance with the permittee's permit application, the following surge control vessels and bottoms receiver tanks , do not exceed the threshold triggers of A.3.q.i through A.3.q.iv of Part II - Specific Facility Terms and Conditions. Therefore, these vessels are not required to meet the conditions listed in section A.3.q of Part II - Specific Facility Terms and Conditions at the time of permit issuance: 206-FA, 206-FB, 202-F, and 3232-F.

III Monitoring and/or Recordkeeping

1. The permittee shall maintain a temperature monitoring device, equipped with a continuous recorder, in the firebox of the thermal oxidizer (2007-L) in accordance with the requirements of section A.2.d.i of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records of the thermal oxidizer firebox temperature in accordance with section A.2.h.i of Part II - Specific Facility Terms and Conditions.

2. The permittee shall monitor any bypass line(s) that could divert a vent stream away from the thermal oxidizer in accordance with section A.2.d.iv of Part II - Specific Facility Terms and Conditions. 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 section A.2.d.iv of Part II - Specific Facility Terms and Conditions.

a. 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 section A.2.h.i.(3) of Part II - Specific Facility Terms and Conditions. The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or

b. Secure the bypass line 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 valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line.

The permittee shall maintain records of the flow indicator requirements or monthly visual inspection for bypass lines that could divert a vent stream away from the thermal oxidizer in accordance with sections A.2.h.i.(3) and A.2.h.i.(4) of Part II - Specific Facility Terms and Conditions.

3. Whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent, the permittee shall recalculate the TRE index value, flow, or organic HAP concentration as necessary to determine if the vent is Group 1 or Group 2 in accordance with section A.2.e.v of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records of process vent group determinations in accordance with sections A.2.g, A.2.h.iii, A.2.h.iv, and A.2.h.v of Part II - Specific Facility Terms and Conditions.

4. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

5. For each Group 2 storage vessel, the permittee shall comply with the record keeping requirements of section A.2.i of Part II - Specific Facility Terms and Conditions.

6. For each Group 1 process wastewater stream, the permittee shall comply with the requirements of section A.2.k through A.2.z of Part II - Specific Facility Terms and Conditions as described in

7. The permittee shall maintain procedures for the management of maintenance wastewater in accordance with section A.1.o of Part II - Specific Facility Terms and Conditions.

8. [OAC rule 3745-21-09(EE)(3)(a)]
   The total resource effectiveness value for an air oxidation process shall be calculated in accordance with the following equations:

a. For nonchlorinated process vent streams with a net heating value less than or equal to 3.6 and for all chlorinated process vent streams:

TRE =[a+bW^.88 + cW + dWH + eW^.88 H^.88 + f W^.5]/E

where,

TRE = total resource effectiveness value;

E = maximum hourly VOC emission rate at the vent stream design flowrate (W), in kilograms of VOC per hour (kg/hr);

W = vent stream design flowrate at a standard temperature of twenty degrees Celsius, in standard cubic meters per minute (scm/min);

H = vent stream net heating value, as determined in accordance with OAC rule 3745-21-10(P)(2), in megajoules per standard cubic meter (106J/scm); and

a, b, c, d, e, and f = applicable coefficients from Appendix B of OAC rule 3745-21-09.

b. For nonchlorinated process vent streams with a net heating value greater than 3.6:

TRE = [a+bW^.88 + cW + dWH + eW^.88 H^.88 + f(WH / 3.6)^.5]/E

where TRE, E, W, H, a, b, c, d, e and f are defined as above.

9. [OAC rule 3745-21-09(EE)(3)(b)]
The parameters used in the total resource effectiveness equations shall be measured at the outlet(s) of the final product recovery device(s) where VOC is reclaimed for beneficial reuse (recycle, sale or use in another part of the process).

10. For each day during which the permittee burns a fuel other than natural gas and/or process vent gas in the thermal oxidizer, the permittee shall maintain a record of the type and quantity of fuel burned.

11. The permittee shall maintain records for benzene waste operations in accordance with the requirements specified in 40 CFR 61.356 and sections A.4.e and A.4.f of Part II - Specific Facility Terms and Conditions.

12. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-030, issued on 10/4/78: A.III.1 through A.III.11. 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 Periodic Reports in accordance with section A.2.zb.iii of Part II - Specific Facility Terms and Conditions. The Periodic Reports shall be submitted semi-annually no later than 60 calendar days after the end of each 6-month period. The reports shall include all information specified in sections A.2.g and A.2.h of Part II - Specific Facility Terms and Conditions for process vents and all information specified in section A.2.w of Part II - Specific Facility Terms and Conditions for process wastewater, including reports of periods when monitored parameters are outside their established ranges.

2. The permittee shall submit reports of start-up, shutdown, and malfunction in accordance with 40 CFR 63.10(d)(5) and section A.2.zb.iv of Part II - Specific Facility Terms and Conditions. The semi-annual start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under section A.2.zb.iii of Part II - Specific Facility Terms and Conditions instead of the schedule specified in 40 CFR 60.10(d)(5).

3. Whenever the recalculations performed (when process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent) determine one of the criteria below have been met, the permittee shall submit a report as specified in sections A.2.h.vii through A.2.h.x of Part II - Specific Facility Terms and Conditions and the permittee shall comply with the appropriate provisions in section A.2.c of Part II - Specific Facility Terms and Conditions by the dates specified in section A.1 of Part II - Specific Facility Terms and Conditions.

   a. the recalculated TRE index value is less than or equal to 1.0;

   b. the recalculated TRE index value is less than or equal to 4.0 but greater than 1.0;

   c. the recalculated flow rate is greater than or equal to 0.005 standard cubic meter per minute; or

   d. the recalculated concentration is greater than or equal to 50 parts per million by volume.

4. The permittee shall submit semi-annual reports for the LDAR program in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

5. For each heat exchange system, the permittee shall comply with the reporting requirements of section A.1.n.vi of Part II - Specific Facility Terms and Conditions.

6. The permittee shall submit reports of any fuels burned in the thermal oxidizer (2007-L) other than process vent gas and natural gas within 30 days to the Portsmouth local air agency, including the date, type and amount of any such fuel burned.

7. The permittee shall submit reports for benzene waste operations in accordance with the requirements specified in 40 CFR 61.357 and section A.4.g of Part II - Specific Facility Terms and Conditions.

8. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

9. Reports required by sections A.1, A.2, and A.3 of Part II - Specific Facility Terms and Conditions shall be submitted to USEPA Region 5, with a copy to the Portsmouth local air agency, in accordance with section A.1.m.iii of Part II - Specific Facility Terms and Conditions.

10. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent or more stringent than the reporting requirements contained in Permit to Install #07-030, issued on 10/4/78: A.IV.I through A.IV.9. 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 limitation in section A.I.2.b of these terms and conditions shall be determined in accordance with the following method:

1a. Emissions Limitation -

The emissions of total organic HAP from Group 1 process vents shall be reduced by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. The emission reduction or concentration shall be calculated on a dry basis, corrected to 3-percent oxygen.

Applicable Compliance Method:

The concentration (ppm) and/or control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the thermal oxidizer) shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, and 18. 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.

2. The permittee shall conduct, or have conducted, emission testing for the thermal oxidizer in accordance with the following requirements:

   a. The emission testing shall be conducted within 24 months of permit issuance.

   b. The emission testing shall be conducted to demonstrate compliance with the HAP concentration (ppm) and/or control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the thermal oxidizer).

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for HAP concentration, Methods 1 through 4 and 18 of 40 CFR Part 60, Appendix A. Alternative U. S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

   d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth local air agency.

   e. If required, 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. 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 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.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent or more stringent than the testing requirements contained in Permit to Install #07-030, issued on 10/4/78: 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

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: BPA Plant (P003)
Activity Description: Bisphenol-A Production Plant

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
bisphenol-A production plant controlled with: 10 vacuum system pumps (C-901A1, C-901A2, C-901B1, C-901B2, C-902A, C-902B, C-903A, C-903B, C-904A, C-904B) 11 vent condensers (E-107, E-203A, E-203B, E-203C, E-204, E-205, E-206, E-207, E-903A, E-903B, D-905A, D-905B, D-910A, D-910B); a hydrochloric acid scrubber (T-702); and two baghouses (F-402, F-602)	OAC rule 3745-31-05(A)(3) (PTI 07-309)	Volatile organic compound emissions from the scrubber (T-702) shall be negligible. Volatile organic compound emissions shall not exceed 7.82 pounds per hour and 34.25 tons per year.
	OAC rule 3745-31-05(A)(3) (PTI 07-264)	Particulate emissions from the combined outlet of the two baghouses (F-402 & F-602) shall not exceed 4.74 pounds per hour and 20.76 tons per year. The hourly emission limitation specified by this rule is less stringent than the hourly emission

	limitation established pursuant to OAC rule 3745-17-11(B).
40 CFR Part 63, Subparts F, G, and H	See sections A.I.2.a and A.I.2.b below.
40 CFR Part 60, Subpart NNN	See sections A.I.2.c through A.I.2.f below.
40 CFR Part 60, Subpart VV	See section A.I.2.g below.
OAC rule 3745-21-09(DD)	See section A.I.2.h 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 3745-17-11(B)	Particulate emissions from the combined outlet of the two baghouses (F-402 & F-602) shall not exceed 3.96 pounds per hour.

2. Additional Terms and Conditions

2.a In accordance with section A.3 of Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit. The leak detection and repair program pertains to any type of 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 HAP service within the emissions unit.

2.b 40 CFR Part 60, Subpart NNN applies to the following distillation units and associated recovery equipment within the BPA process unit:

i. The following components which vent collectively to the C-902A/B suction knockout drum (D-904) and are controlled by the low vacuum system. [The low vacuum system consists of two vacuum pumps C-902A & C-902B) and two condensers (D-905A & D-905B).]

first crystallization flash drum (D-304)
second crystallization flash drum (D-501R)

epoxy BPA stripping column (T-601)

ii. The following components which vent collectively to the C-901A/B suction knockout drum (D-903) and are controlled by the high vacuum system. [The high vacuum system includes: the HVS second stage intercooler vent condensers (E-903A & E-903B), the HVS first stage booster pumps (C-901A1 & C-901A2), the spare HVS first stage booster pumps (C-901B1 & C-901B2), the HVS second stage booster pumps (C-903A & C-903B), the HVS main pumps (C-904A & C-904B), and two condensers (D-910A & D-910B).]

first stage crystallizer #1 (D-301)
first stage crystallizer #2 (D-302)
poly BPA phenol removal flash drum (D-401)
polycarbonate BPA stripping column (T-401)
epoxy BPA phenol removal flash drum (D-601)
second stage crystallizer #2 (D-503)
second stage crystallizer #1 (D-513)
mother liquid flash drum (D-804)

iii. hydrochloric acid stripper column (T-201) with a series of condensers (E-204, E-205, E-206, E-207)

iv. hydrochloric acid extractive distillation column (T-701) with a scrubber (T-702)

2.c [40 CFR 60.660(c)(4)]
The equipment subject to 40 CFR Part 60, Subpart NNN with a total resource effectiveness (TRE) index value of greater than 8.0 are exempt from the requirements of 40 CFR Part 60, Subpart NNN except for the requirements specified in 60.662, 60.664(d), 60.664(e), and 60.664(f), 60.665(h), and 60.665(l). In accordance with the permittee's permit application, the following distillation columns and associated recovery equipment have a TRE index value greater than 8.0: low vacuum system; high vacuum system; and hydrochloric acid stripper column (T-201).

2.d [40 CFR 60.660(c)(6)]
The equipment subject to 40 CFR Part 60, Subpart NNN with a vent stream flow rate less than 0.008 standard cubic meters per minute (scm/min) are exempt from the requirements of 40 CFR Part 60 Subpart NNN except for the requirements specified in 60.664(g) and 60.665(i), 60.665(l)(5), and 60.665(o). In accordance with the permittee's permit application, the following distillation columns have a flow rate less than 0.008 standard cubic meters per minute: hydrochloric acid extractive distillation column (T-701).

2.e [40 CFR 60.662]
The equipment subject to 40 CFR Part 60, Subpart NNN with a TRE index equal to or less than 8.0 and a flow rate equal to or greater than 0.008 standard cubic meter per minute (scm/m) shall comply with one of the following:

i. Reduce the emissions of total organic compounds (TOC) by 98% by weight or to a concentration of 20 ppmv TOC, on a dry basis corrected to 3% oxygen;

ii. Combust the emissions in a flare that meets the requirements of 40 CFR 60.18; or

iii. Maintain a TRE index value greater than 1.0 without the use of VOC emission control devices.

2.f In accordance with 40 CFR Part 60, Subpart VV, the permittee shall maintain a LDAR program for equipment in volatile organic compound service within this emissions unit.

For equipment which is subject to the provisions of 40 CFR Part 60, Subpart VV and is also subject to section A.3 of Part II - Specific Facility Terms and Conditions, the permittee is required only to comply with section A.3 of Part II. The provisions in 40 CFR 63.1(a)(3) of Subpart A do not alter the provisions in this section.

This process unit has equipment to which section A.3 of Part II - Specific Facility Terms and Conditions does not apply, but which is subject to 40 CFR Part 60, Subpart VV. The permittee has elected to apply section A.3 of Part II - Specific Facility Terms and Conditions to all such equipment in the process unit. All VOC in such equipment shall be considered, for purposes of applicability and compliance with section A.3 of Part II - Specific Facility Terms and Conditions, as if it were organic HAP. Compliance with the provisions of section A.3 of Part II, in the manner described in this section, shall be deemed to constitute compliance with 40 CFR Part 60 Subpart VV.

2.g In accordance with OAC rule 3745-21-09(DD), the permittee shall maintain a LDAR program for equipment in VOC service within this emissions unit.

In lieu of complying with the requirements specified in paragraphs (DD)(2) through (DD)(10) of OAC rule 3745-21-09, the permittee shall comply with the equivalent requirements outlined in section A.3 of Part II - Specific Facility Terms and Conditions.

II Operational Restrictions

1. The condenser (E-207) exit temperature (product side) shall not exceed 149 degrees Fahrenheit as a daily average.

2. Each surge control vessel or bottoms receiver tank which meets one of the conditions listed in section A.3.q of Part II - Specific Facility Terms and Conditions shall be equipped with a closed vent system that routes the organic vapors from the surge control vessel or bottoms receiver tank back to the process or to a control device that complies with the requirements of section A.3.s of Part II - Specific Facility Terms and Conditions or shall be equipped with a fixed roof and an internal floating roof or an external floating roof.

   In accordance with the permittee's permit application, the following surge control vessels and bottoms receiver tanks, do not exceed the threshold triggers of A.3.q.i through A.3.q.iv of Part II - Specific Facility Terms and Conditions. Therefore, these vessels are not required to meet the conditions listed in section A.3.q of Part II - Specific Facility Terms and Conditions at the time of permit issuance: D-404R, D-603, D-714, S-400B, S-400C, TK-101, D-909, D-104, D-303, D-312R, D-310, D-308, D-311, D-314, D-313, D-502R, D-202R, D-204, D-701A, D-701B, D-706A, D-706B, D-707, D-507, D-803R, D-505, D-508, and D-510.

III Monitoring and/or Recordkeeping

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

2. For each process vent with a TRE > 1.0 but < 4.0 that uses a recovery device, the permittee shall monitor the recovery device operating parameters in accordance with the requirements of A.2.d.ii of Part II - Facility Specific Terms and Conditions.

   The condenser (E-207), the final recovery device for a process vent with a TRE > 1.0 but < 4.0, shall be equipped with a condenser exit temperature monitoring device.

   The permittee shall maintain continuous records of the condenser (E-207) outlet temperature.

   The permittee shall record the daily average exit temperature for each operating day.

3. Whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent, the permittee shall recalculate the TRE index value, flow, or organic HAP concentration as necessary to determine if the vent is Group 1 or Group 2 in accordance with section A.2.e.v of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records of process vent group determinations in accordance with sections A.2.g, A.2.h.iii, A.2.h.iv, and A.2.h.v of Part II - Specific Facility Terms and Conditions.

4. For each Group 2 storage vessel, the permittee shall comply with the record keeping requirements of section A.2.i of Part II - Specific Facility Terms and Conditions.

5. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

6. For each Group 2 process wastewater stream, the permittee shall comply with the record keeping requirements of section A.2.x.vi of Part II - Specific Facility Terms and Conditions.

7. The permittee shall maintain procedures for the management of maintenance wastewater in accordance with section A.1.o of Part II - Specific Facility Terms and Conditions.

8. [40 CFR 60.664(d)]
   The net heating value of the gas combusted for determining the process vent stream TRE index value to determine compliance under 40 CFR 60.662(c) shall be determined in accordance with the equations and procedures in 40 CFR 60.664(d).

9. [40 CFR 60.664(e)]
   For purposes of complying with 40 CFR 60.662(c), the permittee shall determine the TRE index value by calculating values using both the incinerator equation in 40 CFR 60.664(e)(1) and the flare equation in 40 CFR 60.664(e)(2) and selecting the lower of the two values.

10. [40 CFR 60.664(f)]
    The permittee seeking to comply with 40 CFR 60.660(c)(4) or 40 CFR 60.662(c) shall recalculate the TRE index value for that affected facility whenever process changes are made. Examples of process changes include changes in production capacity, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. The TRE index value shall be recalculated based on test data, or on best engineering estimates of the effects of the change to the recovery system.

    a. Where the recalculated TRE index value is less than or equal to 1.0, the permittee shall notify the Administrator, with a copy to the Portsmouth local air agency, within 1 week of the recalculation and shall conduct a performance test according to the methods and

procedures required by 40 CFR 60.664 in order to determine compliance with 40 CFR 60.662(a). Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

b. Where the initial TRE index value is greater than 8.0 and the recalculated TRE index value is less than or equal to 8.0 but greater than 1.0, the permittee shall conduct a performance test in accordance with 40 CFR 60.8 and 40 CFR 60.664 and shall comply with 40 CFR 60.663, 60.664, and 60.665. Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

11. [40 CFR 60.663(d)]
For distillation columns complying with the TRE index value limit specified under 40 CFR 60.662(c) of greater than or equal to 1.0, the permittee shall install, calibrate, maintain, and operate according to manufacturer's specifications the equipment specified in 40 CFR 60.663(d).

12. [40 CFR 60.665(h)]
The permittee shall maintain the following records for each piece of equipment complying with 40 CFR 60.662(c):

a. any changes in production capacity feedstock type, catalyst type, or of any replacement, removal, or addition of recovery equipment or a distillation unit;

b. any recalculation of the TRE performed pursuant to 40 CFR 60.664(f); and

c. the results of any performance test performed pursuant to 40 CFR 60.664(d).

13. [40 CFR 60.664(g)]
The permittee shall use Method 2, 2A, 2C, or 2D, 40 CFR Part 60, Appendix A for determination of the flow rate to demonstrate compliance with 40 CFR 60.660(c)(6).

14. [40 CFR 60.665(i)]
The permittee shall maintain the following records for each piece of equipment complying with 40 CFR 60.660(c)(6):

a. that the vent stream flow rate is less than 0.008 standard cubic meter per minute; and

b. any change in equipment or process operation that increases the vent stream flow rate including a measurement of the new vent stream flow rate.

15. The permittee shall maintain records for benzene waste operations in accordance with the requirements specified in 40 CFR 61.356 and sections A.4.e and A.4.f of Part II - Specific Facility Terms and Conditions.

16. 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 # 07-309, issued on 12/9/92 and Permit to Install #07-264, as issued on 3/18/92: A.III.1 through A.III.15. 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 semiannual written reports that (a) identify all days during which any visible particulate 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 Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

2. The permittee shall report all daily average condenser (E-207) exit temperatures that exceed the temperature limitations above.

3. The permittee shall submit Periodic Reports in accordance with section A.2.zb.iii of Part II - Specific Facility Terms and Conditions. The Periodic Reports shall be submitted semi-annually no later than 60 calendar days after the end of each 6-month period. The reports shall include all information specified in sections A.2.g and A.2.h of Part II - Specific Facility Terms and Conditions for process vents and all information specified in A.2.w of Part II - Specific Facility Terms and Conditions for process wastewater, including reports of periods when monitored parameters are outside their established ranges.

4. Whenever the recalculations (performed when process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent) determine that one of the criteria below has been met, the permittee shall submit a report as specified in A.2.h.vii through A.2.h.x of Part II - Specific Facility Terms and Conditions and the permittee shall comply with the appropriate provisions in section A.2.c of Part II - Specific Facility Terms and Conditions by the dates specified in section A.1 of Part II - Specific Facility Terms and Conditions.

   a. the recalculated TRE index value is less than or equal to 1.0;

   b. the recalculated TRE index value is less than or equal to 4.0 but greater than 1.0;

   c. the recalculated flow rate is greater than or equal to 0.005 standard cubic meter per minute; or

d. the recalculated concentration is greater than or equal to 50 parts per million by volume.

5. The permittee shall submit the information required in 40 CFR 60.665(b)(4) when demonstrating compliance with the TRE index value of greater than 1.0 option of 40 CFR 60.662(c).

6. [40 CFR 60.665(l)]
The permittee shall submit semi-annual reports of the following recorded information:

a. Any change in equipment or process operation that increases the operating vent stream flow rate above the low flow exemption level in 40 CFR 60.660(c)(6), including a measurement of the new vent stream flow rate, as recorded under 40 CFR 60.665(i). These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semi-annual reports or as a single separate report. A performance test must be completed with the same time period to verify the recalculated flow value and to obtain the vent stream characteristics of heating value and ETOC (hourly emission rate of TOC). The performance test is subject to the requirements of 40 CFR 60.8. Unless the facility qualifies for an exemption under the low capacity exemption status in 40 CFR 60.660(c)(5), the facility must begin compliance with the requirements set forth in 40 CFR 60.662.

b. Any recalculation of the TRE index value, as recorded under 40 CFR 60.665(h).

7. The permittee shall submit reports of start-up, shutdown, and malfunction in accordance with 40 CFR 63.10(d)(5) and section A.2.zb.iv of Part II - Specific Facility Terms and Conditions. The semi-annual start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under A.2.zb.iii of Part II - Specific Facility Terms and Conditions instead of the schedule specified in 40 CFR 63.10(d)(5).

8. The permittee shall submit semi-annual reports for the LDAR program in accordance with the requirements of section A.3.zc.iv of Part II - Facility Specific Terms and Conditions.

9. 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.

10. The permittee shall submit reports for benzene waste operations in accourdance with the requirements specified in 40 CFR 61.357 and section A.4.g of Part II - Specific Facility Terms and Conditions.

11. Reports required by sections A.1, A.2, and A.3 of Part II - Specific Facility Terms and Conditions shall be submitted to USEPA Region 5, with a copy to the Portsmouth local air agency, in accordance with section A.1.m.iii of Part II - Specific Facility Terms and Conditions.

12. 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 # 07-309, issued on 12/9/92 and Permit to Install #07-264, as issued on 3/18/92: A.IV.1 through A.IV.11. 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:

1a. Emission Limitation -

Volatile organic compound emissions from the hydrochloric acid scrubber (T-702) shall be negligible.

Applicable Compliance Method:

This process vent was tested in March 1991 and had no flow rate. The equipment associated with the tar removal system (indicated with a *) was added after Permit to Install 07-309 was issued on 12/9/92. This vent shall be tested in accordance with the requirements of 40 CFR Part 60, Subpart NNN to demonstrate the flow rate is still negligible.

i. hydrochloric acid surge drum (D-708) The following equipment is vented to D-708: extractive distillation column (T-701).

ii. hydrochloric acid storage tank (TK-2002 (OEPA ID T041))

iii. acidic vent washing column [scrubber] (T-203)

The following equipment is vented to T-203:
(1) T-201 barometric pot B (D-203)
(2) acidic phenol drum (D-204)
(3) acidic phenolic water surge drums (D-701A/B)
(4) crude acidic phenolic water surge drums (D-706A/B)
(5) residual water surge drum (D-707) with vented component equipment: calcium chloride solution flash drum (D-710) with condenser (E-703) and the spare calcium chloride solution flash drum (D-710A) with condenser (E-703A)
(6) calcium chloride surge tank (D-717) *
(7) calcium chloride pump tank (D-718) *
(8) tar decanter (D-719) *
(9) tar storage tank (D-720) *

1b. Emission Limitation -

Volatile organic compound emissions shall not exceed 7.82 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the emissions from the process vents listed below. The emissions from each process vent shall be determined at maximum operating conditions using the calculations and emission factors contained in AP-42, Volume 1, 5th Edition, Chapter 1, Section 7.1, dated September, 1997 unless otherwise noted below. Alternate emission factors may be used with prior approval by the Portsmouth local air agency.

i. PB01 - exhaust stack (ST-401) the combined vent stack for 9 vents

(1) acetone feed surge drum (D-103) controlled by a vent condenser (E-107)

(2) high vacuum system drum (D-903)

Emissions shall be calculated by multiplying the VOC emission factor of 3.77 x 10^-4 pound of VOC per gallon of acetone times the acetone feed rate to the reactors in gallons per hour. The VOC emission factor was calculated from the results of the April, 1991 stack test.

The following equipment vents to the high vacuum system drum (D-903):

(a) first stage crystallizer #1 (D-301) with condenser (E-304);
(b) first stage crystallizer #2 (D-302) with condenser (E-305);
(c) polycarbonate BPA phenol removal flash drum (D-401) with condensers (E-403 & E-402);
(d) second stage crystallizer #2 (D-503) with condenser (E-506);
(e) second stage crystallizer #1 (D-513) with condenser (E-513);
(f) epoxy BPA phenol removal flash drum (D-601) with condenser (E-602);
(g) mother liquor flash drum (D-804) with condensers (E-808 & E806); and
(h) polycarbonate BPA stripping column (T-401) with condenser (E-460R).

The emissions from the high vacuum system are controlled by: the HVS second stage intercooler vent condensers (E-903A & E-903B), the HVS 1st stage booster pumps (C-901A1 & C-901A2), the spare HVS 1st stage booster pumps (C-901B1 & C-901B2), the HVS 2nd stage booster pumps (C-903A & C-903B), and the high vacuum system main pumps (C-904A & C-904B).

(3) low vacuum system drum (D-904)

Emissions shall be calculated by multiplying the VOC emission factor of 4.26 x 10^-5 pound VOC per gallon of acetone feed times the acetone feed rate to the reactors, in gallons per hour. The VOC emission factor was calculated from the results of the April, 1991 stack test.

The following equipment vents to the low vacuum system drum (D-904):

(a) first crystallization flash drum (D-304) with condenser (E-302R);
(b) second crystallization flash drum (D-501R) with condenser (E-502R); and
(c) epoxy BPA stripping column (T-601) with condenser (E-605).

The emissions from the low vacuum system are controlled by two liquid ring vacuum pumps and condensers (C-902A & C-902B).

(4) phenol water decanter (S-400A)

(5) water side surge drum (S-400B)

(6) phenol side surge drum (S-400C)

(7) vacuum pump suction seal tanks (TK-901A & TK-901B)

(8) polycarbonate BPA prilling tower (T-402) controlled by a baghouse (F-402) no VOC emissions based on engineering judgement

(9) epoxy BPA prilling tower (T-602) controlled by a baghouse (F-602) no VOC emissions based on engineering judgement

ii. PB02 - recycled phenol tank (TK-101)

iii. PB03 - tartaric acid drum (D-104)

iv. PB04 - hydrochloric acid stripper column (T-201) controlled by vent condensers: the overhead condensers (E-203A/B/C), the overhead final condenser absorber (E-204), the first stage jet condenser (E-205), the second stage jet condenser (E-206), and the third stage vent condenser (E-207)

Emissions shall be calculated by multiplying the VOC emission factor of 5.62 x 10^-4 pound of VOC per gallon of column feed by the HCL column feed rate, in gallons per hour. The VOC emission factor was calculated from the results of the September, 1999 stack test.

v. PB05 - D-301 feed mixing drum (D-303)

vi. PB06 - filter feed drum (D-312R)

vii. PB07 - EIMCO rotary drum vacuum filter system (S-301 & S-302) and filtered BPA remelt/mixing drum (D-310)

Emissions shall be calculated by multiplying the VOC emission factor of 1.07 x 10^-3 pound of VOC per gallon of acetone feed times the acetone feed rate to the reactors, in gallons per hour. The VOC emission factor was calculated from the results of the April, 1991 stack test.

viii. PB08 - intermediate washing liquor drum (D-308)

ix. PB09 - final washing liquor drum (D-311)

x. PB10 - S-301/302 barometric Pot (D-314)

xi. PB11 - mother liquor drum (D-313)

xii. PB12 - vent condenser barometric pot (D-402)

xiii. PB13 - melted poly BPA surge drum (D-404R)

xiv. PB15 - D-513 feed mixing drum (D-502R)

xv. PB16 - molten epoxy BPA surge drum (D-603)

xvi. PB17 - calcium chloride solution surge drum (D-702) no VOC emissions

xvii. PB18 - tar decanter (D-714)

xviii. PB19 - hydrochloric acid vent scrubber (T-702) controlling 3 vents

The scrubber vent (T-702) was tested in March, 1991 and had no flow rate. The equipment associated with the tar removal system (indicated with a *) was added after Permit to Install 07-309 was issued on 12/9/92. This vent shall be tested in accordance with the requirements of 40 CFR Part 60, Subpart NNN to demonstrate the flow is still negligible.

(1) hydrochloric acid surge drum (D-708) The following equipment is vented to D-708: extractive distillation column (T-701).

(2) hydrochloric acid storage tank (TK-2002 (OEPA ID T041))

(3) acidic vent washing column [scrubber] (T-203)

The following equipment is vented to T-203:

(a) T-201 barometric pot B (D-203)
(b) acidic phenol drum (D-204)
(c) acidic phenolic water surge drums (D-701A/B)
(d) crude acidic phenolic water surge drums (D-706A/B)
(e) residual water surge drum (D-707) with vented component equipment: calcium chloride solution flash drum (D-710) with condenser (E-703) and the spare calcium chloride solution flash drum (D-710A) with condenser (E-703A)
(f) calcium chloride surge tank (D-717) *
(g) calcium chloride pump tank (D-718) *
(h) tar decanter (D-719) *
(i) tar storage tank (D-720) *

xix. PB21 - phenolic vent system knockout drum (D-912) controlling:

(1) overhead condensate drum (D-803R)

(2) wet phenol reflux drum (D-507)

(3) heavy residue surge drum (D-802R)

xx. PB22 - reaction building drain sump (TK-902)

Emissions shall be determined using the calculations and factors contained in the SIMs computer program or other equivalent factors used to estimate air emissions from wastewater collection, storage, treatment, and disposal systems with prior approval by the Portsmouth local air agency.

xxi. PB23 - purification building drain sump (TK-904)

Emissions shall be determined using the calculations and factors contained in the SIMs computer program or other equivalent factors used to estimate air emissions from wastewater collection, storage, treatment, and disposal systems with prior approval by the Portsmouth local air agency

xxii. PB24 - storm water sump (TK-2122)

Emissions shall be determined using the calculations and factors contained in the SIMs computer program or other equivalent factors used to estimate air emissions from wastewater collection, storage, treatment, and disposal systems with prior approval by the Portsmouth local air agency

xxiii. PB25 - centrifuge slurry feed drum (D-505)

Emissions shall be calculated by multiplying the VOC emission factor of 1.10 x 10^-4 pound of VOC per gallon of acetone feed times the acetone feed rate to the reactors, in gallons per hour. The VOC emission factor was calculated from the results of the March, 1995 stack test.

The following component equipment, comprising the phenol vent header, are vented to (D-505):

(1) second stage mother liquor drum (D-506)
(2) BPA to phenol plant surge drum (D-508)
(3) 2nd crystallization reslurry drum (D-510)
(4) second crystallization screen bowl centrifuges (F-501A/B)

Note: Piping exists which would allow the phenolic vent header to vent to both the ST-401 exhaust stack and D-505 the centrifuge slurry feed drum. Due to the physical configuration of the piping it is believed that the phenolic vent header emissions do not travel out the ST-401 exhaust stack but take the path of least resistance out PB25. The March, 1995 stack test confirmed there is no flow from the phenolic vent header to the exhaust stack (ST-401).

1b. If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 18 or 25.

1c. Emission Limitation -

Volatile organic compound emissions shall not exceed 34.25 tons per year.

Applicable Compliance Method:

This emission limitation was determined by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1d. Emission Limitation -

Particulate emissions from the combined outlet of the two baghouses (F-402 & F-602) shall not exceed 20.76 tons per year.

Applicable Compliance Method:

This emission limitation was determined by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1e. Emission Limitation -

Visible particulate emissions from the baghouse outlet stack(s) shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

1f. Emission Limitation -

Particulate emissions from the combined outlet of the two baghouses (F-402 & F-602) shall not exceed 3.96 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the particulate emission factor of 3.60 x 10^-2 pound of particulate per ton of total BPA produced, by the maximum production rate, in tons per hour. The particulate emission factor was calculated from the results of the February, 1993 stack test.

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

2. The permittee shall conduct, or have conducted, flow rate testing for the hydrochloric acid scrubber (T-702) in accordance with the following requirements:

a. The emissions testing shall be conducted within 12 months of permit expiration.

b. The emission testing shall be conducted to demonstrate negligible flow rate.

c. The following test method(s) shall be employed to demonstrate compliance with the flow rate requirement, Methods 1 through 4 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at near its maximum capacity, unless otherwise specified or approved by the Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the 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.

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 # 07-309, issued on 12/9/92 and Permit to Install #07-264, as issued on 3/18/92: 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

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: Aniline Plant (P004)
Activity Description: Aniline Production Plant (modified in 5/95 for Coproduction)

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
aniline and diphenylamine plant with two scrubbers (E-21, E-90) and a scrubber / process heater combination (E-111 / B-10)	OAC rule 3745-31-05(A)(3) (PTI 07-449)	Particulate emissions from the process heater (B-10) shall not exceed 0.30 pound per hour and 1.31 tons per year. Sulfur dioxide emissions from the process heater (B-10) shall not exceed 0.01 pound per hour and 0.06 ton per year. Nitrogen oxides emissions from the process heater (B-10) shall not exceed 2.94 pounds per hour and 12.9 tons per year. Volatile organic compound emissions from the process heater (B-10) shall not exceed 0.59 pound per hour and 2.58 tons per year. Volatile organic compound emissions from the process vents

	shall not exceed 48.29 pounds per day and 8.81 tons per year. Volatile organic compound emissions from fugitive equipment leaks shall not exceed 34.28 tons per year. Ammonia emissions from the process vents shall not exceed 7.88 pounds per day and 1.44 tons per year. Ammonia emissions from fugitive equipment leaks shall not exceed 50.20 tons per year.
40 CFR Part 63, Subparts F, G, and H	See sections A.I.2.a, A.I.2.b, and A.I.2.c below.
40 CFR Part 60, Subpart NNN	See sections A.I.2.d through A.I.2.g below.
40 CFR Part 60, Subpart VV	See section A.I.2.h below.
OAC rule 3745-21-09(DD)	See section A.I.2.i 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 pound per mmBtu of actual heat input.
OAC rule 3745-18-06	See section A.I.2.j below.

2. Additional Terms and Conditions

2.a In accordance with section A.2.c.ii of Part II - Specific Facility Terms and Conditions, for all Group 1 process vent streams, the emissions of total organic HAPs shall be reduced by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is

less stringent. The emission reduction or concentration shall be calculated on a dry basis, corrected to 3% oxygen.

2.b In accordance with section A.3 of Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, connector, surge control vessel, bottoms receiver, and instrumentation system in organic HAP service within the emissions unit.

2.c The following distillation units and associated recovery equipment are subject to the provisions of 40 CFR 60, Subpart NNN but are required to comply only with sections A.1 and A.2 of Part II - Specific Facility Terms and Conditons for Group 1 process vents:

E-60 Distillation Column
E-110 Distillation Column

2.d [40 CFR 60.660(c)(6)]
The equipment subject to 40 CFR Part 60, Subpart NNN, which is operated with a vent stream flow rate less than 0.008 standard cubic meter per minute, is exempt from the requirements of 40 CFR Part 60, Subpart NNN except for the requirements specified in 60.664(g) and 60.665(i), 60.665(l)(5), and 60.665(o). In accordance with the permittee's permit application, the following distillation column vents have a flow rate of less than 0.008 standard cubic meter per minute: E-110

2.e [40 CFR 60.662]
The equipment subject to 40 CFR Part 60, Subpart NNN with a TRE index of less than 8.0 and a flow rate greater than 0.008 standard cubic meters per minute shall comply with one of the following:

i. reduce the emissions of total organic compounds (TOC) by 98%, by weight, or to a concentration of 20 ppmv TOC, on a dry basis corrected to 3% oxygen;

ii. combust the emissions in a flare that meets the requirements of 40 CFR 60.18; or

iii. maintain a TRE index value greater than 1.0 without the use of VOC emission control devices.

2.f In accordance with 40 CFR Part 60.480(d)(3), this emissions unit, which produces heavy liquid chemicals only from heavy liquid feed or raw materials, is exempt from the LDAR requirements of 60.482.

2.g In accordance with OAC rule 3745-21-09(DD)(17)(a)(ii), this emissions unit, which produces heavy liquid chemicals only from heavy liquid feed or raw materials, is exempt from the LDAR requirements of OAC rule 3745-21-09(DD)(2) through (DD)(6).

2.h The process heater (B-10) is fueled with natural gas and process vent gas only and has no process weight rate as defined in OAC rule 3745-18-01(B)(13). Therefore, this emissions unit is exempt from the emission limitation established in OAC rule 3745-18-06(E).

II Operational Restrictions

1. In accordance with the permittee's permit application, the permittee is operating by routing the organic vapors from Group 1 process vents from this emissions unit to the process heater (B-10) to comply with the percent reduction requirement or concentration limit specified in section A.2.c.ii of Part II - Specific Facility Terms and Conditions. The vent stream shall be introduced into the flame zone of the process heater. The minimum firebox temperatures, each as a daily average, are listed below:

Operating Mode	Minimum Daily Average Firebox Temperature (degrees Fahrenheit)
Aniline Production & Regeneration	1444
Diphenylamine Production & Regeneration	1254
Co-Production of Aniline and Diphenylamine	1629

2. The pressure drop across the scrubber (E-21) shall be continuously maintained at a value greater than 0 inches but less than 2 inches of water at all times while the emissions unit is in operation.

   The E-21 scrubber water flow rate shall be continuously maintained at a value of not less than 0.5 gallon per minute at all times while the emissions unit is in operation.

3. The permittee shall burn only process vent gases and/or natural gas in the process heater (B-10).

4. Each surge control vessel or bottoms receiver tank which meets one of the conditions listed in section A.3.q of Part II - Specific Facility Terms and Conditions shall be equipped with a closed vent system that routes the organic vapors from the surge control vessel or bottoms receiver tank back to the process or to a control device that complies with the requirements of section A.3.s of Part II - Specific Facility Terms and Conditions or shall be equipped with a fixed roof and an internal floating roof or an external floating roof.

   In accordance with the permittee's permit application, the following surge control vessels and bottoms receiver tanks , do not exceed the threshold triggers of A.3.q.i through A.3.q.iv of Part II - Specific Facility Terms and Conditions. Therefore, these vessels are not required to meet the

conditions listed in section A.3.q of Part II - Specific Facility Terms and Conditions at the time of permit issuance: F-110, F-10, F-42A, F-42B, F-52, and F-51.

III Monitoring and/or Recordkeeping

1. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

2. The permittee shall maintain a statement listing the feed or raw materials and products from the emissions unit and an analysis demonstrating these chemicals are heavy liquids in accordance with the requirements of 40 CFR 60.486(i)(2) and OAC rule 3745-21-09(DD)(14)(f)(ii).

3. The permittee shall maintain a temperature monitoring device, equipped with a continuous recorder, in the firebox of the process heater (B-10) in accordance with the requirements of section A.2.d.i of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records of the process heater firebox temperature in accordance with section A.2.h.i of Part II - Specific Facility Terms and Conditions.

4. The permittee shall monitor any bypass line(s) that could divert a vent stream away from the process heater (B-10) in accordance with section A.2.d.iv of Part II - Specific Facility Terms and Conditions. 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 section A.2.d.iv of Part II - Specific Facility Terms and Conditions.

   a. 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 section A.2.h.i.(3) of Part II - Specific Facility Terms and Conditions. The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or

   b. Secure the bypass line 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 valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line.

   The permittee shall maintain records of the flow indicator or monthly visual inspection requirements for bypass lines that could divert a vent stream away from the process heater in accordance with sections A.2.h.i.(3) and A.2.h.i.(4) of Part II - Specific Facility Terms and Conditions.

5. Whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent, the permittee shall recalculate the TRE index value, flow, or organic HAP concentration as necessary to determine if the vent is Group 1 or Group 2 in accordance with section A.2.e.v of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records of process vent group determinations in accordance with sections A.2.g, A.2.h.iii, A.2.h.iv, and A.2.h.v of Part II - Specific Facility Terms and Conditions.

6. For each Group 2 storage vessel, the permittee shall comply with the record keeping requirements of section A.2.i of Part II - Specific Facility Terms and Conditions.

7. For each Group 2 process wastewater stream, the permittee shall comply with the record keeping requirements of section A.2.x.vi of Part II - Specific Facility Terms and Conditions.

8. The permittee shall monitor the cooling water at the inlet and outlet of the aniline heat exchange system for the presence of aniline in accordance with sections A.1.n.ii, A.1.n.iii, and A.1.n.iv of Part II - Specific Facility Terms and Conditions. On a quarterly basis, the permittee shall obtain three samples from the inlet and three samples from the outlet of the heat exchanger. The permittee shall analyze the samples in accordance with the methods and procedures of Method 625 of 40 CFR Part 163, Appendix A. The results of the analysis shall be evaluated as specified in section A.2.n.ii.(6) of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain heat exchange system records in accordance with section A.1.n.v of Part II - Specific Facility Terms and Conditions.

9. The permittee shall maintain procedures for the management of maintenance wastewater in accordance with section A.1.o of Part II - Specific Facility Specific Terms and Conditions.

10. For the E-21 scrubber, the permittee shall properly install, operate and maintain equipment to monitor and record the pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and recorder(s) shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

    The permittee shall collect and record the following information each day:

    a. the pressure drop across the scrubber, in inches of water;

    b. the scrubber water flow rate, in gallon per minute; and

    c. the downtimes for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

11. For each day during which the permittee burns a fuel other than process vent gases and/or natural gas in the process heater (B-10), the permittee shall maintain a record of the type and quantity of fuel burned.

12. [40 CFR 60.665(i)]
The permittee shall maintain the following records for the distillation columns complying with 40 CFR 60.660(c)(6):

    a. that the vent stream flow rate is less than 0.008 standard cubic meters per minute; and

    b. any change in equipment or process operation that increases the vent stream flow rate and a measurement of the new vent stream flow rate.

    [40 CFR 60.664(g)]
    The permittee shall use Method 2, 2A, 2C, or 2D, 40 CFR Part 60, Appendix A for determination of the flow rate to demonstrate compliance with 40 CFR 60.660(c)(6).

13. The permittee shall perform pressure testing of the process heater (B-10) convection section once every calendar year.

13a. The pressure testing shall be performed in accordance with the following procedure:

    i. Install 1" thick slip blinds on the 14" headers.

    ii. Use a hose from the plant air header, bring test pressure to 50 psi, stop and hold for 5 minutes. Use a test gauge with a range of 300 psi.

    iii. Bring test pressure to equal air header pressure (approximately 100 psi). Disconnect hose. Inspect all flange connections for leaks using a soapy water solution.

    iv. Connect line from portable high pressure compressor to test point inlet.

    v. Raise pressure to 290 psi and hold for 5 minutes.

    vi. Drop pressure to 200 psi and inspect all flange connections using a soapy water solution.

    vii. De-pressure.

    viii. Remove test blinds and connect flanges for process use.

13b. A leak is detected when the pressure indicator drops more than 5% while holding pressure in steps A.III.13.a.v above.

13c. When a leak is detected, it shall be repaired prior to the startup of the process unit.

13d. The permittee shall maintain the following records for each pressure test conducted:

i. the date;

ii. the time and pressure at the beginning of each pressure test in section A.III.13.a.v above;

iii. the time and pressure at the end of each pressure test in section A.III.13.a.v above;

iv. whether or not a leak was detected;

v. corrective action to repair the leak; and

vi. information in A.III.13.d.i through A.III.13.d.v for pressure retest after the repair of a leak.

14. The permittee shall maintain records for benzene waste operations in accordance with the requirements specified in 40 CFR 61.356 and sections A.4.e and A.4.f of Part II - Specific Facility Terms and Conditions.

15. 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 # 07-449, issued on 9/10/97 and modified on 12/12/01: A.III.1 through A.III.14. 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 semi-annual reports for the LDAR program in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

2. The permittee shall submit Periodic Reports in accordance with section A.2.zb.iii of Part II - Specific Facility Terms and Conditions. The Periodic Reports shall be submitted semi-annually no later than 60 calendar days after the end of each 6-month period. The reports shall include all information specified in A.2.g and A.2.h of Part II - Specific Facility Terms and Conditions for process vents and all information specified in A.2.w of Part II - Specific Facility Terms and Conditions for process wastewater, including reports of periods when monitored parameters are outside their established ranges.

3. The permittee shall submit reports of start-up, shutdown, and malfunction in accordance with 40 CFR 63.10(d)(5) and section A.2.zb.iv of Part II - Specific Facility Terms and Conditions. The semi-annual start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under A.2.zb.iii of Part II - Specific Facility Terms and Conditions instead of the schedule specified in 40 CFR 63.10(d)(5).

4. For each heat exchange system, the permittee shall comply with the reporting requirements of section A.1.n.vi of Part II - Specific Facility Terms and Conditions.

5. For the E-21 scrubber, the permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

   a. static pressure drop across the scrubber; and/or

   b. the scrubber water flow rate.

6. The permittee shall submit reports of any fuels burned other than process vent gases and/or natural gas in the process heater (B-10) within thirty (30) days to the local air pollution control office, including the date, type, and amount of any such fuel burned.

7. Whenever the recalculations (performed when process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent) determine that one of the criteria below have been met, the permittee shall submit a report as specified in A.2.h.vii through A.2.h.x of Part II - Specific Facility Terms and Conditions and the permittee shall comply with the appropriate provisions in A.2.c of Part II - Specific Facility Terms and Conditions by the dates specified in section A.1 of Part II - Specific Facility Terms and Conditions.

   a. the recalculated TRE index value is less than or equal to 1.0;

   b. the recalculated TRE index value is less than or equal to 4.0 but greater than 1.0;

   c. the recalculated flow rate is greater than or equal to 0.005 standard cubic meter per minute; or

   d. the recalculated concentration is greater than or equal to 50 parts per million by volume.

8. The deviation (excursion) reports shall be submitted in accordance with the requirements of Part I - General Term and Condition A.1.c of this permit.

9. The permittee shall submit deviation (excursion) reports that identify the date when any leak was discovered in the process heater (B-10) convection section, the corrective action taken to repair

the leak, the date of successful repair of the leak, and the results of the pressure test conducted after successful repair of the leak.

10. The permittee shall submit reports for benzene waste operations in accordance with the requirements specified in 40 CFR 61.357 and section A.4.g of Part II - Specific Facility Terms and Conditions.

11. Reports required by sections A.1, A.2, and A.3 of Part II - Specific Facility Terms and Conditions shall be submitted to USEPA Region 5, with a copy to the Portsmouth local air agency, in accordance with section A.1.m.iii of Part II - Specific Facility Terms and Conditions.

12. 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 #07-449, issued on 9/10/97 and modified on 12/12/01: A.IV.1 through A.IV.11. 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:

1a. Emission Limitation -

Particulate emissions from the process heater shall not exceed 0.30 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the particulate emission factor of 1.9 pounds per mmscf of natural gas and process vent gas fired, by the maximum quantity of natural gas and process vent gas fired in mmscf per hour. The particulate emission factor was obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.4, Table 1.4-2, dated July, 1998.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(9).

1b. Emission Limitation -

Particulate emissions from the process heater shall not exceed 1.31 tons per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1c. Emission Limitation -

Sulfur dioxide emissions from the process heater shall not exceed 0.01 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the sulfur dioxide emission factor of 0.6 pound per mmscf of natural gas and process vent gas fired, by the maximum quantity of natural gas and process vent gas fired per hour, in mmscf. The sulfur dioxide emission factor was obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.4, Table 1.4-2, dated July, 1998.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 or 6c.

1d. Emission Limitation -

Sulfur dioxide emissions from the process heater shall not exceed 0.06 ton per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1e. Emission Limitation -

Nitrogen oxide emissions from the process heater shall not exceed 2.94 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the nitrogen oxide emission factor of 236 pounds of NOx per mmscf of natural gas and process vent gas fired, by the maximum quantity of natural gas and process vent gas fired per hour, in mmscf. The NOx emission factor was calculated from the results of the June, 1998 stack test.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or 7e.

1f. Emission Limitation -

Nitrogen oxide emissions from the process heater shall not exceed 12.9 tons per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1g. Emission Limitation -

Volatile organic compound emissions from the process heater shall not exceed 0.59 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18.

1h. Emission Limitation -

Volatile organic compound emissions from the process heater shall not exceed 2.58 tons per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1i. Emission Limitation -

Volatile organic compound emissions from the process vents shall not exceed 48.29 pounds per day.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the emissions from the process vents listed below. The emissions from each process vent shall be determined at maximum operating conditions using the calculations and emission factors contained in AP-42, Volume 1, 5th Edition, Chapter 1, Section 7.1, dated September, 1997 unless noted otherwise. Alternate emission factors may be used with prior approval by the Portsmouth local air agency.

i. PN01 - phenol feed tank (F-10)

ii. PN02 - vacuum column hot well (F-30) with ammonia scrubber (E-21)

Compliance shall be demonstrated by multiplying the VOC emission factor of 5.33 x 10-7 pounds of VOC per gallon, by the maximum feed rate of phenol in gallons per day. The VOC emission factor was calculated from the results of the March, 1991 stack test.

iii. PN03 - DPA reactor effluent tank (F-19) and scrubber water tank (F-93) with ammonia scrubber (E-90)

Emissions shall be determined with the ASPEN process model program (Aspen Plus Version 10.1-0 Build 56; Copyright 1980 Massachusetts Institute of Technology; Copyright 1981-1999 Aspen Technology, Inc.).

iv. PN04 - aniline rundown tank (F-42A)

v. PN05 - aniline rundown tank (F-42B)

vi. PN06 - caustic tank (F-52) there are no emissions of VOC from this caustic tank

vii. PN07 - DPA day tank (F-54A)

viii. PN08 - DPA day tank (F-54B)

ix. PN09 - waste sump (F-51)

x. PN10 - storm water sump (A-90) there are no emissions of VOC from this storm water sump

xi. PN11 - compressor oil storage tank (J-10)

xii. PN12 - pad water holding sump (A-92)

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 18 or 25.

1j. Emission Limitation -

Volatile organic compound emissions from the process vents shall not exceed 8.81 tons per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the allowable daily emission limitation by 365 days per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the daily emission limitation is maintained.

1k. Emission Limitation -

Volatile organic compound emissions from fugitive equipment leaks shall not exceed 34.28 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the emission rates from each type of equipment in VOC service within the process. Equipment types include: valves, pump seals, pressure relief valves, connectors, open ended lines, and sampling connections. For each equipment type use the SOCMI average emission factors (EPA-453/R-93-026, Table 2-1, dated 6/93) and the following equation:

VOC emission rate from a given equipment type (pounds per hour) = average emission factor (pounds per hour per equipment type) times the average weight fraction of VOC in the stream times the number of pieces of the equipment type in the stream times 8,760 hours per year, and then divided by 2,000 pounds per ton.

SOCMI No-Leak emission factors may be used to calculate emissions from equipment in heavy liquid service as outlined in a Texas Natural Resources Conservation Commission document "Guidance Package for Chemical Sources - Equipment Leak Fugitives" dated March, 1995.

1l. Emission Limitation -

Ammonia emissions from the process vents shall not exceed 7.88 pounds per day.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the emissions from the process vents listed below:

i. PN02 - vacuum column hot well (F-30) with ammonia scrubber (E-21)

Emissions shall be determined by multiplying the maximum feed rate of Phenol, in gallons per day, by the 6.91 x 10-5 pound per gallon emission factor. The ammonia emission factor was calculated from the March, 1991 stack test.

ii. PN03 - DPA reactor effluent tank (F-19) and scrubber water tank (F-93) with ammonia scrubber (E-90)

Emissions shall be determined with the ASPEN process model program (Aspen Plus Version 10.1-0 Build 56; Copyright 1980 Massachusetts Institute of Technology; Copyright 1981-1999 Aspen Technology, Inc.).

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in CTM-027.

1m. Emission Limitation -

Ammonia emissions from the process vents shall not exceed 1.44 tons per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the allowable daily emission limitation by 365 days per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the daily emission limitation is maintained.

1n. Emission Limitation -

Ammonia emissions from fugitive equipment leaks shall not exceed 50.20 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the emission rates from each type of equipment within the process. Equipment types include: valves, pump seals, pressure relief valves, connectors, open ended lines, and sampling connections. For each equipment type use the SOCMI average emission factors (EPA-453/R-93-026, Table 2-1, dated 6/93) and the following equation:

Ammonia emission rate from a given equipment type (pounds per hour) = average emission factor (pounds per hour per equipment type) times the average weight fraction of Ammonia in the stream times the number of pieces of the equipment type in the stream times 8,760 hours per year, and then divided by 2,000 pounds per ton.

1o. Emission Limitation -

Visible particulate emissions from B-10 process heater stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

1p. Emissions Limitation -

The emissions of total organic HAP from Group 1 process vents shall be reduced by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. The emission reduction or concentration shall be calculated on a dry basis, corrected to 3% oxygen.

Applicable Compliance Method:

The concentration (ppm) and/or control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the process heater) shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Method 1 through 4, and 18. 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.

1q. Emission Limitation -

Particulate emissions from the process heater shall not exceed 0.020 pound per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance shall be demonstrated by dividing the particulate emission factor of 1.9 pounds per mmscf of natural gas and process vent gas fired, by the heat content of natural gas 1,100 mmBtu per mmscf. The particulate emission factor was obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.4, Table 1.4-2, dated July, 1998.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(9).

2. The permittee shall conduct, or have conducted, emission testing for the process heater (B-10) in accordance with the following requirements:

   a. The emission testing shall be conducted 24 months prior to permit expiration.

   b. The emission testing shall be conducted to demonstrate compliance with the allowable emission rate for VOC and the HAP concentration (ppm) and/or control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the process heater).

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): U. S. EPA Method 18, 40 CFR Part 60, Appendix A. Alternative U. S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

   d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth local air agency. The test shall be performed while this flexible operation chemical manufacturing process unit is producing the primary product as required by section A.2.l.iv of Part II - Specific Terms and Conditions.

   e. If required, 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. 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 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.

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 #07-449, issued on 9/10/97 and modified on 12/04/01: 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

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: AMS Hydrogenation (P006)
Activity Description: AMS Hydrogenation Plant

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
alphamethylstyrene hydrogenation plant with a vent condenser (3516-C)	OAC rule 3745-31-05(A)(3) (PTI 07-451)	Volatile organic compound emissions shall not exceed 16.71 pounds per day and 3.05 tons per year.
	40 CFR Part 63, Subparts F, G, and H	See sections A.I.2.a and A.I.2.b below.
	40 CFR Part 60, Subpart VV	See section A.I.2.c below.
	OAC rule 3745-21-09(DD)	See section A.I.2.d below.

2. Additional Terms and Conditions

2.a In accordance with section A.3 of Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within the emissions unit.

2.b In accordance with 40 CFR Part 60, Subpart VV, the permittee shall maintain a LDAR program for equipment in volatile organic compound (VOC) service within this emissions unit.

For equipment which is subject to the provisions of 40 CFR Part 60, Subpart VV and is also subject to section A.3 of Part II - Specific Facility Terms and Conditions, the permittee is required only to comply with section A.3 of Part II. The provisions in 40 CFR 63.1(a)(3) of Subpart A do not alter the provisions in this section.

This process unit has equipment to which section A.3 of Part II - Specific Facility Terms and Conditions does not apply, but which is subject to 40 CFR Part 60, Subpart VV. The permittee has elected to apply section A.3 of Part II - Specific Facility Terms and Conditions to all such equipment in the process unit. All VOC in such equipment shall be considered, for purposes of applicability and compliance with section A.3 of Part II - Specific Facility Terms and Conditions, as if it were organic HAP. Compliance with the provisions of section A.3 of Part II, in the manner described in this section, shall be deemed to constitute compliance with 40 CFR Part 60, Subpart VV.

2.c In accordance with OAC rule 3745-21-09(DD), the permittee shall maintain a LDAR program for equipment in VOC service within this emissions unit. In lieu of complying with the requirements specified in paragraphs (DD)(2) through (DD)(10) of OAC rule 3745-21-09, the permittee shall comply with the equivalent requirements outlined in section A.3 of Part II - Specific Facility Terms and Conditions.

II Operational Restrictions

1. The average temperature of the exhaust gases from the condenser (3516-C), for any 3-hour contiguous block of time, shall not be more than 90 degrees Fahrenheit.

2. Each surge control vessel or bottoms receiver tank which meets one of the conditions listed in section A.3.q of Part II - Specific Facility Terms and Conditions shall be equipped with a closed vent system that routes the organic vapors from the surge control vessel or bottoms receiver tank back to the process or to a control device that complies with the requirements of section A.3.s of Part II - Specific Facility Terms and Conditions or shall be equipped with a fixed roof and an internal floating roof or an external floating roof.

   In accordance with the permittee's permit application, the following surge control vessels and bottoms receiver tanks , do not exceed the threshold triggers of sections A.3.q.i through A.3.q.iv of Part II - Specific Facility Terms and Conditions. Therefore, these vessels are not required to meet the conditions listed in section A.3.q of Part II - Specific Facility Terms and Conditions at the time of permit issuance: 5510-F.

III Monitoring and/or Recordkeeping

1. The permittee shall operate and maintain continuous temperature monitors and recorders which measure and record the temperature of the exhaust gases from the condenser (3516-C) when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for the thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within plus or minus 1 percent of the temperature being measured or plus or minus 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information each day for the condenser (3516-C):

   a. The average temperatures of the exhaust gases from the condenser during each of the eight 3-hour contiguous blocks of time during the day.

   b. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

2. Whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent, the permittee shall recalculate the TRE index value, flow, or organic HAP concentration as necessary to determine if the vent is Group 1 or Group 2 in accordance with section A.2.e.v of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records of process vent group determinations in accordance with sections A.2.g, A.2.h.iii, A.2.h.iv, and A.2.h.v of Part II - Specific Facility Terms and Conditions.

3. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

4. The permittee shall maintain procedures for the management of maintenance wastewater in accordance with section A.1.o of Part II - Specific Facility Terms and Conditions.

5. The permittee shall maintain records for benzene waste operations in accordance with the requirements specified in 40 CFR 61.356 and sections A.4.e and A.4.f of Part II - Specific Facility Terms and Conditions.

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 # 07-451, issued on 2/8/98 and modified on xx/xx/xx:

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 temperature deviation (excursion) reports that identify all 3-hour contiguous blocks of time during which the average temperature of the exhaust gases from the condenser (3516-C) exceeded the temperature limitation specified above.

2. The permittee shall submit Periodic Reports in accordance with section A.2.zb.iii of Part II - Specific Facility Terms and Conditions. The Periodic Reports shall be submitted semi-annually no later than 60 calendar days after the end of each 6-month period. The reports shall include all information specified in sections A.2.g and A.2.h of Part II - Specific Facility Terms and Conditions for process vents and all information specified in A.2.w of Part II - Specific Facility Terms and Conditions for process wastewater, including reports of periods when monitored parameters are outside their established ranges.

3. The permittee shall submit semi-annual reports for the LDAR program in accordance with the requirements of section A.3.zc.iv of Part II - Facility Specific Terms and Conditions.

4. The permittee shall submit reports of start-up, shutdown, and malfunction in accordance with 40 CFR 63.10(d)(5) and section A.2.zb.iv of Part II - Specific Facility Terms and Conditions. The semi-annual start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under A.2.zb.iii of Part II - Specific Facility Terms and Conditions instead of the schedule specified in 40 CFR 63.10(d)(5).

5. Whenever the recalculations (performed when process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent) determine that one of the criteria in below have been met, the permittee shall submit a report as specified in A.2.h.vii through A.2.h.x of Part II - Specific Facility Terms and Conditions and the permittee shall comply with the appropriate provisions in section A.2.c of Part II - Specific Facility Terms and Conditions by the dates specified in section A.1 of Part II - Specific Facility Terms and Conditions.

   a. the recalculated TRE index value is less than or equal to 1.0;

   b. the recalculated TRE index value is less than or equal to 4.0 but greater than 1.0;

   c. the recalculated flow rate is greater than or equal to 0.005 standard cubic meter per minute; or

d. the recalculated concentration is greater than or equal to 50 parts per million by volume.

6. The permittee shall submit reports for benzene waste operations in accourdance with the requirements specified in 40 CFR 61.357 and section A.4.g of Part II - Specific Facility Terms and Conditions.

7. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

8. Reports required by sections A.1, A.2, and A.3 of Part II - Specific Facility Terms and Conditions shall be submitted to USEPA Region 5, with a copy to the Portsmouth Local Air Agency, in accordance with section A.1.m.iii of Part II - Specific Facility Terms and Conditions.

9. 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 #07-451, issued on 2/8/98 and modified on xx/xx/xx: A.IV.1 through A.IV.8. 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 emissions limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods.

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 16.71 pounds per day.

Applicable Compliance Method:

AH01 - hydrogenation product drum (3512-F) with a condenser (3516-C)
Compliance shall be demonstrated by multiplying the controlled VOC emission factor of 1.47 x 10^-4 pound of VOC per gallon of 3510-D feed, by the maximum feed rate to 3510-D in gallons per hour times 24 hours per day. The VOC emission factor was calculated from the results of the February, 1993 stack test.

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18.

1b. Emission Limitation -

Volatile orgainic compound emissions shall not exceed 3.05 tons per year.

Applicable Compliance Methods:

This emission limitation was developed by multiplying the allowable daily emission limitation by 365 days per year, and then divided by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the daily emission limitation is maintained.

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 #07-451, issued on 2/8/98 and modified on xx/xx/xx: 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

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: Phenol II Plant (P007)
Activity Description: Phenol II Production Plant

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
phenol II plant with a condenser (3301-C), a scrubber (3310-E), and a thermal oxidizer (2007-L) with staged fuel design for low NOx emissions	OAC rule 3745-31-05(A)(3) (PTI 07-00451)	Volatile organic compound (VOC) emissions from the process vents shall not exceed 131.62 pounds per day and 24.02 tons per year. Acetone emissions from the process vents shall not exceed 136.02 pounds per day and 24.82 tons per year. Estimated fugitive VOC emissions shall not exceed 26.84 tons per year. Estimated fugitive acetone emissions shall not exceed 3.79 tons per year. Total particulate emissions from the thermal oxidizer, of all sources vented to the thermal oxidizer, shall not exceed 0.5 pound per hour and 2.19 tons per year.

	Total nitrogen oxide emissions from the thermal oxidizer, of all sources vented to the thermal oxidizer shall not exceed 7.5 pounds per hour and 32.85 tons per year. Total sulfur dioxide emissions from the thermal oxidizer, of all sources vented to the thermal oxidizer, shall not exceed 0.1 pound per hour and 0.44 ton per year. Total volatile organic compound emissions from the thermal oxidizer, of all sources vented to the thermal oxidizer shall not exceed 4.62 pounds per hour and 19.72 tons per year.
40 CFR Part 63, Subparts F, G, and H	See sections A.I.2.a through A.I.2.d below.
40 CFR Part 60, Subpart NNN	See sections A.I.2.g through A.I.2.j below.
40 CFR Part 60, Subpart VV	See section A.I.2.e below.
OAC rule 3745-21-09(DD)	See section A.I.2.f below.
OAC rule 3745-17-07(A)	See section A.I.2.k below.
OAC rule 3745-17-11(B)	See section A.I.2.l below.
OAC rule 3745-18-06	See section A.I.2.m below.

2. Additional Terms and Conditions

2.a In accordance with section A.2.c.ii of Part II - Specific Facility Terms and Conditions, for all Group 1 process vent streams, the emissions of total organic HAPs shall be reduced by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. The emission reduction or concentration shall be calculated on a dry basis, corrected to 3% oxygen.

2.b In accordance with section A.3 of Part II - Facility Specific Terms and Conditions, the permittee shall maintain a leak detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions units.

2.c In accordance with section A.3.s.ii of Part II - Specific Facility Terms and Conditions, the scrubber (3310-E) shall be designed and operated to recover the organic hazardous air pollutant emissions or volatile organic compounds emissions vented to it with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.

2.d In accordance with 40 CFR Part 60, Subpart VV, the permittee shall maintain a LDAR program for equipment in volatile organic compound (VOC) service within this emissions unit.

The leak detection and repair program pertains to any type of pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, flange, connector, closed vent system, and any other device or system in volatile organic compound service within this emissions unit.

For equipment which is subject to the provisions of 40 CFR Part 60, Subpart VV and is also subject to section A.3 of Part II - Specific Facility Terms and Conditions, the permittee is required only to comply with section A.3 of Part II - Specific Facility Terms and Conditions. The provisions in 40 CFR 63.1(a)(3) of Subpart A do not alter the provisions in this section.

For equipment in VOC service which is subject to 40 CFR Part 60, Subpart VV but is not subject to section A.3 of Part II - Specific Facility Terms and Conditions, the permittee has elected to apply section A.3 of Part II - Specific Facility Terms and Conditions to all such equipment in the process unit, in accordance with section A.3.d of Part II - Specific Facility Terms and Conditions. All VOC in such equipment shall be considered, for purposes of applicability and compliance with section A.3 of Part II - Specific Facility Terms and Conditions as if it were organic HAP. Compliance with the provisions of section A.3 of Part II - Specific Facility Terms and Conditions, in the manner described in this section, shall be deemed to constitute compliance with 40 CFR Part 60, Subpart VV.

2.e In accordance with OAC rule 3745-21-09(DD), the permittee shall maintain a LDAR program for equipment in VOC service within this emissions unit.

In lieu of complying with the requirements specified in paragraphs (DD)(2) to (DD)(10) of OAC rule 3745-21-09(DD), the permittee shall comply with the equivalent requirement outlined in section A.3 of Part II - Specific Facility Terms and Conditions.

2.f The requirements of 40 CFR Part 60, Subpart NNN applies to the following distillation units and associated recovery equipment within this process unit:

Egress Point	Distillation Column (equipment number)
P201	Pre-Secondary Cumene Stripper (3227-E)
P223	AMS Super Topper (3500-E) and AMS topping column (3501-E)
UT09	Crude Acetone Column (3301-E)
P215	Phenol Finishing Column (3307-E)
P216	Hydrocarbon Removal Column (3305-E)
P217	Acetone Finishing Column (3303-E) and Acetone Stripper (3309-E)
P218	Crude Phenol Column (3304-E)
P201	Secondary Cumene Stripper (3203-E)
P201	Primary Cumene Stripper (3202-E)
P201	Preflash Separator Drum (3209-F)
P224	AMS Tailing Column (3502-E)
UT09	Acetone Topping Column (3302-E)

2.g [40 CFR 60.660(c)(4)]
The equipment subject to 40 CFR Part 60, Subpart NNN which have a total resource effectiveness (TRE) index value of greater than 8.0 are exempt from the requirements of 40 CFR Part 60, Subpart NNN except for the requirements specified in 60.662, 60.664(d), 60.664(e), and 60.664(f), 60.665(h), and 60.665(l). In accordance with the permittee's permit application, the following distillation columns have a TRE index value greater than 8.0: 3227-E, 3500-E, 3304-E, and 3305-E.

2.h [40 CFR 60.660(c)(6)]
The equipment subject to 40 CFR Part 60, Subpart NNN which have vent stream flow rates less than 0.008 standard cubic meters per minute are exempt from the requirements of 40 CFR Part 60, Subpart NNN except for the requirements specified in 60.664(g) and 60.665(i), 60.665(l)(5), and 60.665(o). In accordance with the permittee's permit application, the following distillation columns have a flow rate less than 0.008 standard cubic meter per minute: 3307-E, 3303-E, 3202-E, 3209-F, 3502-E, and 3203-E.

2.i [40 CFR 60.662]
The equipment subject to 40 CFR Part 60, Subpart NNN with a TRE index of less than 8.0 and a flow rate greater than 0.008 standard cubic meter per minute shall comply with one of the following:

i. reduce the emissions of total organic compounds (TOC) by 98%, by weight, or to a concentration of 20 ppmv TOC, on a dry basis corrected to 3% oxygen;

ii. combust the emissions in a flare that meets the requirements of 40 CFR 60.18; or

iii. maintain a TRE index value greater than 1.0 without the use of VOC emission control devices.

2.j This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

2.k The uncontrolled mass rate of particulate emissions from the thermal oxidizer is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table 1 of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.

2.l The thermal oxidizer is fueled with natural gas and process vent gas only and has no process weight as defined in OAC rule 3745-18-01(B)(13). Therefore, this emissions unit is exempt from the emissions limitation established in OAC rule 3745-18-06(E).

II Operational Restrictions

1. The average temperature of the exhaust gases from the condenser (3301-C), on a daily calendar basis, shall not be greater than 40 degrees Fahrenheit (4.4 degrees Celsius).

2. The crude acetone columns bottom surge tank (3302-F) is a bottoms receiver tank with a capacity of 640.5 cubic meters, containing material with a maximum true VOC vapor pressure of 11.29 psia at operating temperature, and the organic vapors vented from the tank are not vented back to the process and the fixed roof tank is not equipped with an internal floating roof. Therefore, the tank shall be vented to a control device that complies with the requirements in A.3.s of Part II - Specific Facility Terms and Conditions.

   In accordance with the permittee's permit application, the permittee is operating by routing the organic vapors from the bottoms receiver tank to a scrubber (3310-E). Whenever organic HAP emissions are vented to a closed-vent system or control device used to comply with A.3 of Part II - Specific Facility Terms and Conditions, such system or control device shall be operating.

   The scrubber shall be designed and operated to recover the organic hazardous air pollutant emissions or volatile organic compounds emissions vented to it with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.

The scrubber (3310-E) water flow rate shall be continuously maintained at a value of not less than 6 gallons per minute as a daily average at all times while the emissions unit is in operation.

3. Each surge control vessel or bottoms receiver tank which meets one of the conditions listed in section A.3.q of Part II - Specific Facility Terms and Conditions shall be equipped with a closed vent system that routes the organic vapors from the surge control vessel or bottoms receiver tank back to the process or to a control device that complies with the requirements of section A.3.s of Part II - Specific Facility Terms and Conditions or shall be equipped with a fixed roof and an internal floating roof or an external floating roof.

   In accordance with the permittee's permit application, the following surge control vessels and bottoms receiver tanks , do not exceed the threshold triggers of A.3.q.i through A.3.q.iv of Part II - Specific Facility Terms and Conditions. Therefore, these units are not required to meet the conditions listed in section A.3.q of Part II - Specific Facility Terms and Conditions at the time of permit issuance: 3214-F, 3342-F, 3343-F, 3217-F, 3218-F, 3301-F, 3303-F, 3321-FA, 3321-FB, 3226-F, 3505-F, 3507-FA, 3507-FB, 3330-F.

4. In accordance with the permittee's permit application, the permittee is operating by routing the organic vapors from Group 1 process vents from this emissions unit to a thermal oxidizer (2007-L) in order to comply with the percent reduction requirement or concentration limit specified in section A.2.c.ii of Part II - Specific Facility Terms and Conditions. The minimum firebox temperature of the thermal oxidizer shall be 1,450 degrees Fahrenheit (788 degrees Celsius) as a daily calendar average.

5. The permittee shall burn only process vent gases and/or natural gas in the thermal oxidizer (2007-L).

6. The Phenol II Hub and the CHP Hub shall be equipped with tightly fitting solid covers in accordance with section A.2.z of Part II - Specific Facility Terms and Conditions.

III Monitoring and/or Recordkeeping

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature of the exhaust gases from the condenser (3301-C) when the emissions units are in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within plus or minus 1 percent of the temperature being measured or plus or minus 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

   The permittee shall collect and record the following information each day:

a. the average temperature of the exhaust gases from the condenser (3301-C) on a daily calendar basis; and

b. a log or record of downtimes for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

2. The permittee shall monitor the closed vent system which routes the organic vapors from the crude acetone columns bottom surge tank (3302-F) to the scrubber (3310-E) in accordance with sections A.3.s.v through A.3.s.x of Part II - Specific Facility Terms and Conditions.

The permittee shall monitor the scrubber (3310-E) to ensure that it is operated and maintained in conformance with its design as required by A.3.s.iv of Part II - Specific Facility Terms and Conditions. The permittee shall properly install, operate, and maintain equipment to monitor and record the scrubber water flow rate for the scrubber (3310-E) while the emissions unit is in operation. The monitoring devices and recorder(s) shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall collect and record the following information on a daily basis:

a. the scrubber water flow rate, in gallons per minute; and

b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

3. The permittee shall maintain a temperature monitoring device, equipped with a continuous recorder, in the firebox of the thermal oxidizer (2007-L) in accordance with the requirements of section A.2.d.i of Part II - Specific Facility Terms and Conditions.

The permittee shall maintain records of the thermal oxidizer firebox temperature in accordance with section A.2.h.i of Part II - Specific Facility Terms and Conditions.

4. The permittee shall monitor any bypass line(s) that could divert a vent stream away from the thermal oxidizer (2007-L) in accordance with section A.2.d.iv of Part II - Specific Facility Terms and Conditions. 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 section A.2.d.iv of Part II - Specific Facility Terms and Conditions.

a. 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 section A.2.h.i.(3) of Part II - Specific Facility Terms and Conditions. The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or

b. Secure the bypass line 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 valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line.

The permittee shall maintain records of the flow indicator or monthly visual inspection requirements for bypass lines that could divert a vent stream away from the thermal oxidizer in accordance with sections A.2.h.i.(3) and A.2.h.i.(4) of Part II - Specific Facility Terms and Conditions.

5. Whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent, the permittee shall recalculate the TRE index value, flow, or organic HAP concentration as necessary to determine if the vent is Group 1 or Group 2 in accordance with section A.2.e.v of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records of process vent group determinations in accordance with sections A.2.g, A.2.h.iii, A.2.h.iv, and A.2.h.v of Part II - Specific Facility Terms and Conditions.

6. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

7. For each Group 2 storage vessel, the permittee shall comply with the record keeping requirements of section A.2.i of Part II - Specific Facility Terms and Conditions.

8. For each Group 2 process wastewater stream, the permittee shall comply with the record keeping requirements of section A.2.x.vi of Part II - Specific Facility Terms and Conditions.

9. The permittee shall monitor the cooling water at the inlet and outlet of the Phenol II heat exchange system for the presence of cumene in accordance with sections A.1.n.ii, A.1.n.iii, and A.1.n.iv of Part II - Specific Facility Terms and Conditions. On a quarterly basis, the permittee shall obtain three samples from the inlet and three samples from the outlet of the heat exchanger. The permittee shall analyze the samples in accordance with the methods and procedures of Method 625 of 40 CFR Part 163, Appendix A. The results of the analysis shall be evaluated as specified in section A.2.n.ii.(6) of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain heat exchange system records in accordance with section A.1.n.v of Part II - Specific Facility Terms and Conditions.

10. The permittee shall maintain procedures for the management of maintenance wastewater in accordance with section A.1.o of Part II - Specific Facility Terms and Conditions.

11. [40 CFR 60.664(d)]
The net heating value of the gas combusted for determining the process vent stream TRE index value to determine compliance under 40 CFR 60.662(c) shall be determined in accordance with the equations and procedures in 40 CFR 60.664(d).

12. [40 CFR 60.664(e)]
For purposes of complying with 40 CFR 60.662(c) , the permittee shall determine the TRE index value by calculating values using both the incinerator equation in 40 CFR 60.664(e)(1) and the flare equation in 40 CFR 60.664(e)(2) and selecting the lower of the two values.

13. [40 CFR 60.663(a)]
The permittee uses a thermal oxidizer (2007-L) to comply with the TOC emission limit specified under 40 CFR 60.662(a) and in section A.I.2.i above for two distillation columns with TRE index values less than 1.0 (or assumed to be less than 1.0): 3301-E and 3302-E. For these two distillation columns, the permittee shall comply only with the monitoring, testing, record keeping, and reporting of section A.2 of Part II - Specific Facility Terms and Conditions for Group 1 process vents in accordance with procedures for regulatory overlap in sections A.2.b.v through A.2.b.vii of Part II - Specific Facility Terms and Conditions.

14. [40 CFR 60.664(f)]
The permittee seeking to comply with 40 CFR 60.660(c)(4) or 40 CFR 60.662(c) shall recalculate the TRE index value for that affected facility whenever process changes are made. Examples of process changes include changes in production capacity, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. The TRE index value shall be recalculated based on test data, or on best engineering estimates of the effects of the change to the recovery system.

    a. Where the recalculated TRE index value is less than or equal to 1.0, the permittee shall notify the Administrator, with a copy to the Portsmouth local air agency, within 1 week of the recalculation and shall conduct a performance test according to the methods and procedures required by 40 CFR 60.664 in order to determine compliance with 40 CFR 60.662(a). Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

    b. Where the initial TRE index value is greater than 8.0 and the recalculated TRE index value is less than or equal to 8.0 but greater than 1.0, the permittee shall conduct a performance test in accordance with 40 CFR 60.8 and 40 CFR 60.664 and shall comply with 40 CFR 60.663, 60.664 and 60.665. Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

15. [40 CFR 60.663(d)]
For distillation columns complying with the TRE index value limit specified under 40 CFR 60.662(c) of greater than or equal to 1.0, the permittee shall install, calibrate, maintain, and operate according to manufacturer's specifications the equipment specified in 40 CFR 60.663(d).

16. [40 CFR 60.665(h)]
The permittee shall maintain the following records for each piece of equipment complying with 40 CFR 60.662(c):

    a. any changes in production capacity feedstock type, catalyst type, or of any replacement, removal, or addition of recovery equipment or a distillation unit;

    b. any recalculation of the TRE performed pursuant to 40 CFR 60.664(f); and

    c. the results of any performance test performed pursuant to 40 CFR 60.664(d).

17. [40 CFR 60.664(g)]
The permittee shall use Method 2, 2A, 2C, or 2D, 40 CFR Part 60, Appendix A for determination of the flow rate to demonstrate compliance with 40 CFR 60.660(c)(6).

18. [40 CFR 60.665(i)]
The permittee shall maintain the following records for each piece of equipment complying with 40 CFR 60.660(c)(6):

    a. that the vent stream flow rate is less than 0.008 standard cubic meter per minute; and

    b. any change in equipment or process operation that increases the vent stream flow rate including a measurement of the new vent stream flow rate.

19. For each day during which the permittee burns a fuel other than process vent gases and/or natural gas in the thermal oxidizer (2007-L), the permittee shall maintain a record of the type and quantity of fuel burned.

20. The permittee shall maintain records for benzene waste operations in accordance with the requirements specified in 40 CFR 61.356 and sections A.4.e and A.4.f of Part II - Specific Facility Terms and Conditions.

21. 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 # 07-451, issued on 2/8/98 and modified on xx/xx/xx: A.III.1 through A.III.20. 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 temperature deviation (excursion) reports that identify all periods during which the average temperature of the exhaust gases from the condenser (3301-C) on a daily calendar basis exceeded the temperature limitation specified above.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber water flow rate was not maintained at or above the required levels.

3. The permittee shall submit Periodic Reports in accordance with section A.2.zb.iii of Part II - Specific Facility Terms and Conditions. The Periodic Reports shall be submitted semi-annually no later than 60 calendar days after the end of each 6-month period. The reports shall include all information specified in A.2.g and A.2.h of Part II - Specific Facility Terms and Conditions for process vents and all information specified in A.2.w of Part II - Specific Facility Terms and Conditions for process wastewater, including reports of periods when monitored parameters are outside their established ranges.

4. The permittee shall submit reports of start-up, shutdown, and malfunction in accordance with 40 CFR 63.10(d)(5) and section A.2.zb.iv of Part II - Specific Facility Terms and Conditions. The semi-annual start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under A.3.zb.iii of Part II - Specific Facility Terms and Conditions instead of the schedule specified in 40 CFR 63.10(d)(5).

5. Whenever the recalculations (performed whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent) determine one of the criteria below have been met, the permittee shall submit a report as specified in A.2.h.vii through A.2.h.x of Part II - Specific Facility Terms and Conditions and the permittee shall comply with the appropriate provisions in section A.2.c of Part II - Specific Facility Terms and Conditions by the dates specified in A.1 of Part II - Specific Facility Terms and Conditions:

   a. the recalculated TRE index value is less than or equal to 1.0;

   b. the recalculated TRE index value is less than or equal to 4.0 but greater than 1.0;

   c. the recalculated flow rate is greater than or equal to 0.005 standard cubic meter per minute; or

   d. the recalculated concentration is greater than or equal to 50 parts per million by volume.

6. The permittee shall submit semi-annual reports for the LDAR program for equipment in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

7. For each heat exchange system, the permittee shall comply with the reporting requirements of section A.1.n.vi of Part II - Specific Facility Terms and Conditions.

8. The permittee shall submit the information required in 40 CFR 60.665(b)(4) when demonstrating compliance with the TRE index value of greater than 1.0 option of 40 CFR 60.662(c).

9. [40 CFR 60.665(l)]
   The permittee shall submit semi-annual reports of the following recorded information:

   a. Any change in equipment or process operation that increases the operating vent stream flow rate above the low flow exemption level in 40 CFR 60.660(c)(6), including a measurement of the new vent stream flow rate, as recorded under 40 CFR 60.665(i). These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semi-annual reports or as a single separate report. A performance test must be completed with the same time period to verify the recalculated flow value and to obtain the vent stream characteristics of heating value and ETOC. The performance test is subject to the requirements of 40 CFR 60.8. Unless the facility qualifies for an exemption under the low capacity exemption status in 40 CFR 60.660(c)(5), the facility must begin compliance with the requirements set forth in 40 CFR 60.662.

   b. Any recalculation of the TRE index value, as recorded under 40 CFR 60.665(h).

10. The permittee shall submit reports of any fuels burned in the thermal oxidizer (2007-L) other than process vent gases and/or natural gas within 30 days to the Portsmouth local air agency, including the date, type, and amount of any such fuel burned.

11. The permittee shall submit reports for benzene waste operations in accordance with the requirements specified in 40 CFR 61.357 and section A.4.g of Part II - Specific Facility Terms and Conditions.

12. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

13. Reports required by sections A.1, A.2, and A.3 of Part II - Specific Facility Terms and Conditions shall be submitted to USEPA Region 5, with a copy to the Portsmouth local air agency, in accordance with section A.1.m.iii of Part II - Specific Facility Terms and Conditions.

14. 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

#07-451, issued on 2/8/98 and modified on xx/xx/xx: A.IV.1 through A.IV.13. 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:

1a. Emission Limitation -

VOC emissions from process vents shall not exceed 131.62 pounds per day.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the emissions from the process vents listed below. The emissions from each process vent shall be determined at maximum operating conditions using the calculations and emission factors contained in AP-42, Volume 1, 5th Edition, Chapter 1, Section 7.1, dated September, 1997 unless noted otherwise. Alternate emission factors may be used with prior approval by the Portsmouth local air agency.

i. P201 - exhaust vent for the following equipment:

CHP drain vessel (3214-F)
secondary stripper jet condenser system (3205-L)

Emissions shall be determined by multiplying the VOC emission factor of 6.11 x 10^-5 pound VOC per cubic foot of exhaust gases times the maximum flow rate of exhaust gas. The emission factor was calculated from the results of the May 1989 stack test. The jet condensers operated at fixed rates; therefore, the exhaust flow from the jet condenser vents will be constant at 0.22 acfm. Therefore, the potential VOC emissions are limited to 1.94 x 10^-2 pounds per day or 3.53 x 10^-3 ton per year.

primary stripper jet condenser system (3204-L)

Emissions shall be determined by multiplying the VOC emission factor of 4.44 x 10^-5 pound VOC per cubic foot of exhaust gases times the maximum flow rate of exhaust gas. The emission factor was calculated from the results of the May 1989 stack test. The jet condensers operated at fixed rates; therefore, the exhaust flow rate from the jet condensers vents will be constant at 0.039 acfrm. Therefore, potential VOC emissions are limited to 2.49 x 10^-3 pounds per day or 4.55 x 10^-4 ton per year.

pre-flash jet condenser system (3203-LR)

Emissions shall be determined by multiplying the VOC emission factor of 7.75 x 10 -5 pound VOC per cubic foot of exhaust gases times the maximum flow rate of exhaust gas. The emission factor was calculated from the results of the May 1989 stack test. The jet condensers operated at fixed rates: therefore, the exhaust flow from the jet condensers vents will be constant at 0.37 acfm. Therefore, potential VOC emissions are limited to 4.13 x 10 -2 pounds per day or 7.54 x 10 -3 ton per year.

pre-secondary stripper jet condenser system (3227-L)

Emissions shall be determined using the ideal gas law equation (PV=mRT). The exhaust mass fraction of nitrogen (37.457 pounds per hour) and oxygen (11.269 pounds per hour) as well as the pressure of the jet stream (870 mmHg) for use in the ideal gas law equation were calculated using the SIMCI modeling program, Simulations Sciences, Inc. Pro. 2, Version 5.0. Since these values are constant, the potential VOC emissions are limited to 0.002 pound per hour and 0.009 ton per year.

ii. P202 - caustic dilution tank (3342-F) no VOC emissions from this process vent

iii. P203 - crude acetone column preheater wash tank (3343-F)

iv. P204 - vent condenser (3301-C) controlling 4 process vessels listed below

The controlled emissions rate shall be calculated for each unit with the emissions factors and equations described above at the condenser outlet temperature.

(1) phenolic water tank (3303-F)

(2) fractionation feed tank (3301-F)

(3) neutralizer (3217-F)

(4) acid wash drum (3218-F)

v. P205 - phenol rundown tank (3321-FA)

vi. P206 - phenol rundown tank (3321-FB)

vii. P207 - acetone rundown tank (3312-FA) no VOC emissions

viii. P208 - acetone rundown tank (3312-FB) no VOC emissions

ix. P209 - crude acetone columns bottoms surge tank (3302-F) with a scrubber (3310-E)

Emissions shall be determined using the calculations and emissions factors in section 7.1 of AP-42 as described above and applying a control efficiency based upon the results of calculations performed using the SIMSCI modeling program, Simulation Sciences, Inc., Pro 2, Version 5.0. The control efficiency calculated using the SIMSCI program is 98%.

x. P210 - neutralizer drain vessel (3226-F)

xi. P211 - AMS feed tank (3505-F)

xii. P212 - AMS product tank (3507-FA)

xiii. P213 - AMS product tank (3507-FB)

xiv. P214 - phenolic drain tank (3330-F)

xv. P215 - phenol finishing column reflux drum (3320-F)

xvi. P216 - hydrocarbon removal column reflux drum (3318-F)

Emissions shall be determined by multiplying the VOC emission factor of 1.47 x 10^-5 pound per gallon times the maximum phenol production rate in gallons per day. The VOC emission factor was calculated from the results of the October, 1991 stack test.

xvii. P217 - acetone finishing column jet condenser system (3302-L)

Emissions shall be determined by multiplying the VOC emission factor of 1.03 x 10^-7 pound per cubic foot of exhaust gases times the maximum flow rate of exhaust gas. The emission factor was calculated from the results of the May, 1989 stack test. The jet condensers operate at fixed rates; therefore, the exhaust flow rate from the jet condensers vent will be constant at 0.039 acfm. Therefore, potential VOC emissions are limited to 5.78 x 10^-6 pound per day or 1.05 x 10^-6 ton per year.

xviii. P218 - crude phenol column jet condenser system (3303-L)

Emissions shall be determined by multiplying the VOC emission factor of 2.08 x 10^-6 pound per gallon times the maximum phenol production rate in gallons per day. The VOC emission factor was calculated from the results of the March, 1991 stack test.

xix. P219 - cleavage jet condenser system (3207-L)

Emissions shall be determined by multiplying the VOC emission factor of 2.23 x 10^-5 pound per cubic foot of exhaust gases times the maximum flow rate of exhaust gas. The

emission factor was calculated from the results of the May, 1989 stack test. The jet condensers operate at fixed rates; therefore, the exhaust flow rate from the jet condensers vent will be constant at 0.19 acfm. Therefore, potential VOC emissions are limited to 6.10 x 10^-3 pound per day or 1.11 x 10^-3 ton per year.

xx. P223 - AMS topping column reflux drum (3502-F)

Emissions shall be determined by multiplying the VOC emission factor of 1.04 x 10^-5 pound per gallon times the maximum column throughput rate in gallons per day. The VOC emission factor was calculated from the results of the November, 1998 stack test.

xxi. P224 - AMS tailing column reflux drum (3503-F)

1b. Emission Limitation -

VOC emissions from process vents shall not exceed 24.02 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable daily emission limitation by 365 days per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the daily emission limitation is maintained.

1c. Emission Limitation -

Volatile organic compound emissions from fugitive equipment leaks shall not exceed 26.84 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the emission rates from each type of equipment in VOC service within the process. Equipment types include: valves, pump seals, pressure relief valves, connectors, open ended lines, and sampling connections. For each equipment type use the SOCMI average emission factors (EPA-453/R-93-026, Table 2-1, dated 6/93) and the following equation:

VOC emission rate from a given equipment type (pounds per hour) = average emission factor (pounds per hour per equipment type) times the average weight fraction of VOC in the stream times the number of pieces of the equipment type in the stream times 8,760 hours per year, and then divided by 2,000 pounds per ton.

SOCMI No-Leak emission factors may be used to calculate emissions from equipment in heavy liquid service as outlined in a Texas Natural Resources Conservation Commission document "Guidance Package for Chemical Sources - Equipment Leak Fugitives" dated March, 1995.

1d. Emission Limitation -

Acetone emissions from process vents shall not exceed 136.02 pounds per day.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the emissions from the process vents listed below. The emissions from each process vent shall be determined at maximim operating conditions using the calculations and emission factors contained in AP-42, Volume 1, 5th Edition, Chapter 1, Section 7.1, dated September, 1997 unless otherwise noted below.

i. P203 - crude acetone column preheater wash tank (3343-F)

ii. P204 - vent condenser (3301-C) controlling 4 process vessels listed below

The controlled emissions rate shall be calculated for each unit with the factors and equations described above at the condenser outlet temperature.

(1) phenolic water tank (3303-F)

(2) fractionation feed tank (3301-F)

(3) neutralizer (3217-F)

(4) acid wash drum (3218-F)

iii. P207 - acetone rundown tank (3312-FA)

iv. P208 - acetone rundown tank (3312-FB)

v. P214 - phenolic drain tank (3330-F)

vi. P216 - hydrocarbon removal column reflux drum (3318-F)

Emissions shall be determined by multiplying the acetone emission factor of 6.8 x 10^-6, in pounds per gallon, times the maximum phenol production rate, in gallons per day. The acetone emission factor was calculated from the results of the October, 1991 stack test.

vii. P217 - acetone finishing column jet condenser system (3302-L)

Emissions shall be determined by multiplying the acetone emission factor of 1.82 x 10^-7 pound per cubic foot of exhaust gases times the maximum flow rate of exhaust gas. The emission factor was calculated from the results of the May, 1989 stack test. The jet condensers operate at fixed rates; therefore, the exhaust flow rate from the jet condensers vent will be constant at 0.039 acfm. Therefore, potential acetone emissions are limited to 1.02 x 10^-5 pound per day or 1.86 x 10^-6 ton per year.

viii. P218 - crude phenol column jet condenser system (3303-L)

Emissions shall be determined by multiplying the acetone emission factor of 6.1 x 10^-8, in pounds per gallon, times the maximum phenol production rate, in gallons per day. The acetone emission factor was calculated from the results of the March, 1991 stack test.

ix. P219 - cleavage jet condenser system (3207-L)

Emissions shall be determined by multiplying the acetone emission factor of 1.40 x 10^-3 pound per cubic foot of exhaust gases times the maximum flow rate of exhaust gas. The emission factor was calculated from the results of the May, 1989 stack test. The jet condensers operate at fixed rates; therefore, the exhaust flow rate from the jet condensers vent will be constant at 0.19 acfm. Therefore, potential acetone emissions are limited to 3.83 x 10^-1 pound per day or 6.99 x 10^-2 ton per year.

xxiii. P223 - AMS topping column reflux drum (3502-F)

Emissions shall be determined by multiplying the acetone emission factor of 1.23 x 10^-4 pound per gallon times the maximum column throughput rate in gallons per day. The acetone emission factor was calculated from the results of the November, 1998 stack test.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 18 or 25.

1e. Emission Limitation -

Acetone emissions from process vents shall not exceed 24.82 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable daily emission limitation by 365 days per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the daily emission limitation is maintained.

1f. Emission Limitation -

Acetone emissions from fugitive equipment leaks shall not exceed 3.79 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the emission rates from each type of equipment in acetone service within the process. Equipment types include: valves, pump seals, pressure relief valves, connectors, open ended lines, and sampling connections. For each equipment type use the SOCMI average emission factors (EPA-453/R-93-026, Table 2-1, dated 6/93) and the following equation:

Acetone emission rate from a given equipment type (pounds per hour) = average emission factor (pounds per hour per equipment type) times the average weight fraction of acetone in the stream times the number of pieces of the equipment type in the stream times 8,760 hours per year divided by 2,000 pounds per ton.

1g. Emission Limitation -

Particulate emissions from the thermal oxidizer shall not exceed 0.5 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the particulate emission factor of 0.196 pound of particulate per mmscf of natural gas and process vent gas fired, by the maximum quantity of natural gas and process vent gas fired per hour, in mmscf. The particulate emission factor was calculated from the results of the December, 1992 stack test.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(9).

1h. Emission Limitation -

Total particulate emissions from the thermal oxidizer, of all sources vented to the thermal oxidizer, shall not exceed 2.19 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1i. Emission Limitation -

Total nitrogen oxide emissions from the thermal oxidizer, of all sources vented to the thermal oxidizer, shall not exceed 7.5 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the NOx emission factor of 1.942 pounds of NOx per mmscf of natural gas and process vent gas fired, by the maximum quantity of natural gas and process vent gas fired per hour, in mmscf. The NOx emission factor was calculated from the results of the December, 1992 stack test.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or 7e.

1j. Emission Limitation -

Total nitrogen oxide emissions from the thermal oxidizer, of all sources vented to the thermal oxidizer, shall not exceed 32.85 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1k. Emission Limitation -

Total sulfur dioxide emissions from the thermal oxidizer, of all sources vented to the thermal oxidizer, shall not exceed 0.1 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the SO2 emission factor of 0.049 pound of SO2 per mmscf of natural gas and process vent gas fired, by the maximum quantity of natural gas and process vent gas fired per hour, in mmscf. The SO2 emission factor was calculated from the results of the December, 1992 stack test.

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 or 6c.

1l. Emission Limitation -

Total sulfur dioxide from the thermal oxidizer, of all sources vented to the thermal oxidizer, shall be less than 1 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1m. Emission Limitation -

Total volatile organic compound emissions from the thermal oxidizer, of all sources vented to the thermal oxidizer, shall not exceed 4.62 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18.

1n. Emission Limitation -

Total volatile organic compound emissions from the thermal oxidize, of all sources vented to the thermal oxidizer, shall not exceed 19.72 tons per year.

Applicable Compliance Method:

Compliance with the ton per year emission limitation shall be demonstrated by multiplying the pound per hour emission rate from the most recent stack test which demonstrated compliance times 8,760 hours per year, and then dividing by 2,000 pounds per ton.

1o. Emission Limitation -

The emissions of total organic HAP from Group 1 process vents shall be reduced by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. The emission reduction or concentration shall be calculated on a dry basis, corrected to 3% oxygen.

Applicable Compliance Method:

The concentration (ppm) and/or control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the thermal oxidizer) shall be determined in accordance with the

test methods and procedures specified in 40 CFR Part 60, Appendix A, Method 1 through 4, and 18. 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.

2. The permittee shall conduct, or have conducted, emission testing for the thermal oxidizer in accordance with the following requirements:

   a. The emission testing shall be conducted within 24 months of permit issuance .

   b. The emission testing shall be conducted to demonstrate compliance with the allowable emission rate for VOC and the HAP concentration (ppm) and/or control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the thermal oxidizer).

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): U. S. EPA Method 1 through 4 and 18, 40 CFR Part 60, Appendix A. Alternative U. S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

   d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth local air agency.

   e. If required, 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. 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 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.

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 #07-451, issued on 2/8/98 and modified on xx/xx/xx: 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

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: Phenol I Plant (P008)
Activity Description: Phenol I Production Plant

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
phenol I plant with 7 condensers (217-C, 301-C, 301-CA, 365-C, 363-C, 311-C, 351-C), a fume scrubber (310-L), and a process heater (305-LA)	OAC rule 3745-31-05(A)(3) (PTI 07-240)	Total sulfur dioxide emissions from the process heater (305-LA), of all sources vented to the process heater, shall not exceed 0.01 pound per hour and 0.03 ton per year. Total volatile organic compound emissions from the process heater (305-LA), of all sources vented to the process heater, shall not exceed 1.89 pounds per hour and 8.29 tons per year. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and 3745-17-10(B)(1).
	40 CFR Part 63, Subpart F, G, and H 40 CFR Part 60, Subpart NNN	See sections A.I.2.a through A.I.2.c below.

40 CFR Part 60, Subpart VV	See section A.I.2.f through A.I.2.i below.
OAC rule 3745-21-09(DD)	See section A.I.2.d below.
OAC rule 3745-17-07(A)	See section A.I.2.e below.
OAC rule 3745-17-10(B)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
OAC rule 3745-18-06	Total particulate emissions from the process heater (305-LA), of all sources vented to the process heater, shall not exceed 0.020 pound per million Btu of actual heat input.
	See section A.I.2.j below.

2. Additional Terms and Conditions

2.a In accordance with section A.2.c.ii of Part II - Specific Facility Terms and Conditions, for all Group 1 process vent streams, the emissions of total organic HAPs shall be reduced by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. The emission reduction or concentration shall be calculated on a dry basis, corrected to 3% oxygen.

2.b In accordance with section A.3 of Part II - Facility Specific Terms and Conditions, the permittee shall maintain a leak detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions units.

2.c In accordance with 40 CFR Part 60, Subpart VV, the permittee shall maintain a LDAR program for equipment in volatile organic compound (VOC) service within this emissions unit.

The leak detection and repair program pertains to any type of pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, flange,

connector, closed vent system, and any other device or system in volatile organic compound service within this emissions unit.

For equipment which is subject to the provisions of 40 CFR Part 60, Subpart VV and is also subject to section A.3 of Part II - Specific Facility Terms and Conditions, the permittee is required only to comply with section A.3 of Part II - Specific Facility Terms and Conditions. The provisions in 40 CFR 63.1(a)(3) of Subpart A do not alter the provisions in this section.

For equipment in VOC service which is subject to 40 CFR Part 60, Subpart VV but is not subject to section A.3 of Part II - Specific Facility Terms and Conditions, the permittee has elected to apply section A.3 of Part II - Specific Facility Terms and Conditions to all such equipment in the process unit, in accordance with section A.3.d of Part II - Specific Facility Terms and Conditions. All VOC in such equipment shall be considered, for purposes of applicability and compliance with section A.3 of Part II - Specific Facility Terms and Conditions as if it were organic HAP. Compliance with the provisions of section A.3 of Part II - Specific Facility Terms and Conditions, in the manner described in this section, shall be deemed to constitute compliance with 40 CFR Part 60, Subpart VV.

2.d In accordance with OAC rule 3745-21-09(DD), the permittee shall maintain a LDAR program for equipment in VOC service within this emissions unit.

In lieu of complying with the requirements specified in paragraphs (DD)(2) to (DD)(10) of OAC rule 3745-21-09(DD), the permittee shall comply with the equivalent requirement outlined in section A.3 of Part II - Specific Facility Terms and Conditions.

2.e The requirements of 40 CFR Part 60, Subpart NNN applies to the following distillation units and associated recovery equipment within this process unit:

Egress Point	Distillation Column (equipment number)
P128	AMS Topping Column (501-E)
P132	Ethylbenzene Removal Column (503-E)
P140	Secondary Cumene Stripper (203-E)

2.f [40 CFR 60.660(c)(6)]
The equipment subject to 40 CFR Part 60, Subpart NNN that have a vent stream flow rate less than 0.008 standard cubic meter per minute are exempt from the requirements of 40 CFR Part 60, Subpart NNN except for the requirements specified in 60.664(g) and 60.665(i), 60.665(l)(5), and 60.665(o). In accordance with the permittee's permit application, the following distillation columns have a flow rate less than 0.008 standard cubic meter per minute: 501-E, 503-E, and 203-E.

2.g [40 CFR 60.660(c)(4)]
The equipment subject to 40 CFR Part 60, NNN that have a total resource effectiveness (TRE) index value of greater than 8.0 are exempt from the requirements of 40 CFR Part 60, Subpart NNN except for the requirements specified in 60.662, 60.664(d), 60.664(e), and 60.664(f), 60.665(h), and 60.665(l). In accordance with the permittee's permit application, the following distillation columns have a TRE index value greater than 8.0: none.

i. [40 CFR 60.662]
The equipment subject to 40 CFR Part 60, Subpart NNN with a TRE index of less than 8.0 and a flow rate greater than 0.008 standard cubic meter per minute shall comply with one of the following:

ii. reduce the emissions of total organic compounds (TOC) by 98%, by weight, or to a concentration of 20 ppmv TOC, on a dry basis corrected to 3% oxygen;

iii. combust the emissions in a flare that meets the requirements of 40 CFR 60.18; or

iv. maintain a TRE index value greater than 1.0 without the use of VOC emission control devices.

2.h The process heater (305-LA) is fueled with natural gas and process vent gas only and has no process weight as defined in OAC rule 3745-18-01(B)(13). Therefore, this emissions unit is exempt from the emission limitation established in OAC rule 3745-18-06(E).

II Operational Restrictions

1. Each surge control vessel or bottoms receiver tank that meets one of the conditions listed in section A.3.q of Part II - Specific Facility Terms and Conditions shall be equipped with a closed vent system that routes the organic vapors from the surge control vessel or bottoms receiver tank back to the process or to a control device that complies with the requirements of section A.3.s of Part II - Specific Facility Terms and Conditions or shall be equipped with a fixed roof and an internal floating roof or an external floating roof.

   In accordance with the permittee's permit application, the following surge control vessels and bottoms receiver tanks, do not exceed the threshold triggers of A.3.q.i through A.3.q.iv of Part II - Specific Facility Terms and Conditions. Therefore, these vessels are not required to meet the conditions listed in section A.3.q of Part II - Specific Facility Terms and Conditions at the time of permit issuance: 323-F, 303-F, 317-FR, 213-F, 214-F, 217-F, 301-FA, 308-F, 321-FA, 321-FB, 350-FR, 330-F, 342-F, 227-F, 310-LF, 314-FA, and 351-F.

2. In accordance with the permittee's permit application, the permittee is operating by routing the organic vapors from Group 1 process vents from this emissions unit to a process heater (305-LA)

in order to comply with the percent reduction requirement or concentration limit specified in section A.2.c.ii of Part II - Specific Facility Terms and Conditions. The minimum firebox temperature of the process heater shall be 1,170 degrees Fahrenheit calculated on a daily average.

3. The permittee shall burn only process vent gases and/or natural gas in the DowTherm process heater (305-LA).

4. The Phenol Hub and the CHP Hub shall be equipped with tightly fitting solid covers in accordance with section A.2.z of Part II - Specific Facility Terms and Conditions.

III Monitoring and/or Recordkeeping

1. The permittee shall maintain a temperature monitoring device, equipped with a continuous recorder, in the firebox of the process heater (305-LA) in accordance with the requirements of section A.2.d.i of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records of the process heater (305-LA) firebox temperature in accordance with section A.2.h.i of Part II - Specific Facility Terms and Conditions.

2. The permittee shall monitor any bypass line(s) that could divert a vent stream away from the process heater (305-LA) in accordance with section A.2.d.iv of Part II - Specific Facility Terms and Conditions. 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 section A.2.d.iv of Part II - Specific Facility Terms and Conditions.

   a. 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 section A.2.h.i.(3) of Part II - Specific Facility Terms and Conditions. The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or

   b. Secure the bypass line 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 valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line.

   The permittee shall maintain records of the flow indicator or monthly visual inspection requirements for bypass lines that could divert a vent stream away from the process heater (305-LA) in accordance with sections A.2.h.i.(3) and A.2.h.i.(4) of Part II - Specific Facility Terms and Conditions.

3. Whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent, the permittee shall recalculate the TRE index value, flow,

or organic HAP concentration as necessary to determine if the vent is Group 1 or Group 2 in accordance with section A.2.e.v of Part II - Specific Facility Terms and Conditions.

The permittee shall maintain records of process vent group determinations in accordance with sections A.2.g, A.2.h.iii, A.2.h.iv, and A.2.h.v of Part II - Specific Facility Terms and Conditions.

4. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

5. For each Group 2 storage vessel, the permittee shall comply with the record keeping requirements of section A.2.i of Part II - Specific Facility Terms and Conditions.

6. For each Group 2 process wastewater stream, the permittee shall comply with the record keeping requirements of section A.2.x.vi of Part II - Specific Facility Terms and Conditions.

7. The permittee shall monitor the cooling water at the inlet and outlet of the Phenol I heat exchange system for the presence of phenol and cumene in accordance with sections A.1.n.ii, A.1.n.iii, and A.1.n.iv of Part II - Specific Facility Terms and Conditions. On a quarterly basis, the permittee shall obtain three samples from the inlet and three samples from the outlet of the heat exchanger. The permittee shall analyze the samples in accordance with the methods and procedures of Method 625 of 40 CFR Part 163, Appendix A. The results of the analysis shall be evaluated as specified in section A.2.n.ii.(6).

   The permittee shall maintain heat exchange system records in accordance with section A.1.n.v of Part II - Specific Facility Terms and Conditions.

8. The permittee shall maintain procedures for the management of maintenance wastewater in accordance with section A.1.o of Part II - Specific Facility Terms and Conditions.

9. [40 CFR 60.664(g)]
   The permittee shall use Method 2, 2A, 2C, or 2D, 40 CFR Part 60, Appendix A for determination of the flow rate to demonstrate compliance with 40 CFR 60.660(c)(6).

10. [40 CFR 60.665(i)]
    The permittee shall maintain the following records for each piece of equipment complying with 40 CFR 60.660(c)(6):

    a. that the vent stream flow rate is less than 0.008 standard cubic meter per minute; and

    b. any change in equipment or process operation that increases the vent stream flow rate including a measurement of the new vent stream flow rate.

11. For each day during which the permittee burns a fuel other than process vent gases and/or natural gas in the process heater (305-LA), the permittee shall maintain a record of the type and quantity of fuel burned.

12. The permittee shall maintain records for benzene waste operations in accordance with the requirements specified in 40 CFR 61.356 and sections A.4.e and A.4.f of Part II - Specific Facility Terms and Conditions.

13. 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 # 07-240, issued on 12/4/91 and modified on 8/28/01: A.III.1 through A.III.12. 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 Periodic Reports in accordance with section A.2.zb.iii of Part II - Specific Facility Terms and Conditions. The Periodic Reports shall be submitted semi-annually no later than 60 calendar days after the end of each 6-month period. The reports shall include all information specified in A.2.g and A.2.h of Part II - Specific Facility Terms and Conditions for process vents, all information specified in A.2.w of Part II - Specific Facility Terms and Conditions for process wastewater, including reports of periods when monitored parameters are outside their established ranges.

2. The permittee shall submit reports of start-up, shutdown, and malfunction in accordance with 40 CFR 63.10(d)(5) and section A.2.zb.iv of Part II - Specific Facility Terms and Conditions. The semi-annual start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under A.3.zb.iii of Part II - Specific Facility Terms and Conditions instead of the schedule specified in 40 CFR 63.10(d)(5).

3. Whenever the recalculations (performed whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent) determine one of the criteria below have been met, the permittee shall submit a report as specified in A.2.h.vii through A.2.h.x of Part II - Specific Facility Terms and Conditions and the permittee shall comply with the appropriate provisions in section A.2.c of Part II - Specific Facility Terms and Conditions by the dates specified in A.1 of Part II - Specific Facility Terms and Conditions.

    a. the recalculated TRE index value is less than or equal to 1.0;

    b. the recalculated TRE index value is less than or equal to 4.0 but greater than 1.0;

c. the recalculated flow rate is greater than or equal to 0.005 standard cubic meter per minute; or

d. the recalculated concentration is greater than or equal to 50 parts per million by volume.

4. The permittee shall submit semi-annual reports for the LDAR program for equipment in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

5. For each heat exchange system, the permittee shall comply with the reporting requirements of section A.1.n.vi of Part II - Specific Facility Terms and Conditions.

6. The permittee shall submit reports of any fuels burned in the DowTherm process heater (305-LA) other than process vent gases and/or natural gas within thirty (30) days to the local air pollution control office, including the date, type, and amount of any such fuel burned.

7. The permittee shall submit reports for benzene waste operations in accourdance with the requirements specified in 40 CFR 61.357 and section A.4.g of Part II - Specific Facility Terms and Conditions.

8. Reports required by sections A.1, A.2, and A.3 of Part II - Specific Facility Terms and Conditions shall be submitted to USEPA Region 5, with a copy to the Portsmouth local air agency, in accordance with section A.1.m.iii of Part II - Specific Facility Terms and Conditions.

9. 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 #07-240, issued on 12/4/91 and modified on 8/28/01: A.IV.1 through A.IV.8. 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:

1a. Emission Limitation -

Total sulfur dioxide from the process heater (305-LA), of all sources vented to the process heater, shall not exceed 0.01 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the SO2 emission factor of 0.6 pound of SO2 per mmscf of natural gas and process vent gas fired, by the maximum quantity of natural gas and process vent gas fired per hour, in mmscf. The SO2 emission factor was obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.4, Table 1.4-2, dated July, 1998.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 or 6c.

1b. Emission Limitation -

Total sulfur dioxide from the process heater (305-LA), of all sources vented to the process heater, shall not exceed 0.03 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1c. Emission Limitation -

Total volatile organic compound emissions from the process heater (305-LA), of all sources vented to the process heater, shall not exceed 1.89 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18.

1d. Emission Limitation -

Total volatile organic compound emissions from the process heater (305-LA), of all sources vented to the process heater, shall not exceed 8.29 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1e. Emission Limitation -

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

1f. Emission Limitation -

Total particulate emissions from the process heater (305-LA), of all sources vented to the process heater, shall not exceed 0.020 pound per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance shall be demonstrated by dividing the particulate emission factor of 1.9 pounds of particulate per mmscf of natural gas and process vent gas fired, by the heat value of the natural gas, 1100 mmBtu per mmscf. The particulate emission factor was obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.4, Table 1.4-2, dated July, 1998.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(9).

1g. Emissions Limitation -

The emissions of total organic HAP from Group 1 process vents shall be reduced by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. The emission reduction or concentration shall be calculated on a dry basis, corrected to 3% oxygen.

Applicable Compliance Method:

The concentration (ppm) and/or control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the process heater) shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Method 1 through 4, and 18. 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.

2. The permittee shall conduct, or have conducted, emission testing for the process heater (305-LA) in accordance with the following requirements:

   a. The emission testing shall be conducted within 24 months prior to permit expiration.

   b. The emission testing shall be conducted to demonstrate compliance with the allowable emission rate for VOC and the HAP concentration (ppm) and/or control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the process heater).

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): U. S. EPA Methods 1 through 4 and 18, 40 CFR Part 60, Appendix A. Alternative U. S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

   d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth local air agency.

   e. If required, 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. 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 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.

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 #07-240, issued on 12/4/91 and modified on 8/28/01: 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

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: Phenol WWT (P009)
Activity Description: Phenol Waste Water Treatment

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
phenol wastewater treatment plant including a methylhydroperoxide destruction reactor controlled by a process heater (305-LA) and an enhanced biological treatment unit (2600-D)	OAC rule 3745-31-05(A)(3) (PTI 07-00451)	Volatile organic compound emissions from the wastewater tanks and biological treatment unit shall not exceed 192.47 pounds per day and 35.13 tons per year. Acetone emissions shall not exceed 23.72 pounds per day and 4.33 tons per year. Ammonia emissions shall not exceed 185.32 pounds per day and 33.82 tons per year. Total volatile organic compound emissions from the process heater (305-LA), of all sources vented to the process heater, shall not exceed 1.89 pounds per hour and 8.29 tons per year. Total sulfur dioxide emissions from the process heater (305-LA), of all

	sources vented to the process heater, shall not exceed 0.01 pound per hour and 0.03 ton per year. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and 3745-17-10(B)(1).
40 CFR Part 63, Subparts F, G, and H	See sections A.I.2.a through A.I.2.e below.
40 CFR Part 60, Subpart VV	See section A.I.2.f below.
40 CFR Part 60, Subpart Kb	See section 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)	Total particulate emissions from the process heater (305-LA), of all sources vented to the process heater, shall not exceed 0.020 pound per mmBtu of actual heat input.

2. Additional Terms and Conditions

2.a The permittee shall achieve the Required Mass Removal (RMR) as specified in section A.2.q.ii of Part II - Specific Facility Terms and Conditions for Group 1 wastewater streams.

2.b For each wastewater tank that receives, manages, or treats a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream, the permittee shall comply with the requirements of either section A.2.l.i.(1) or A.2.l.i.(2) of Part II - Specific Facility Terms and Conditions as specified in section A.2.l.i of Part II.

i. In accordance with the permittee's permit application and section A.2.l.i.(1) of Part II, the following wastewater tanks shall be equipped with a fixed roof:

wastewater collection tank (401-F)
MHP feed surge tank (2470-F)
wastewater holding tank (2426-F)
wastewater holding tank (2427-F)
neutralization sump (2427-A)
wastewater holding tank (2428-F)

ii. In accordance with the permittee's permit application and section A.2.l.i.(2) of Part II, the following wastewater tanks shall be equipped with a fixed roof and a closed vent system which routes the hazardous air pollutant vapors vented from the tank to a control device:

methyl hydroperoxide destruction reactor (2472-D) vented to a process heater (305-LA)

2.c At the time of permit issuance, the permittee does not use containers or oil-water separators to receive, manage, or treat Group 1 wastewater. If at any time the permittee uses a container or an oil-water separator to receive, manage, or treat a Group 1 wastewater, the permittee shall comply with the requirements for containers and oil-water separators as specified in sections A.2.n and A.2.p of Part II - Specific Facility Terms and Conditions, except as provided in sections A.2.k.i.(2) and A.2.q.i.(2).

2.d The permittee shall comply with the applicable requirements for individual drain systems as specified in sections A.2.o of Part II - Specific Facility Terms and Conditions, except as provided in sections A.2.k.i.(2) and A.2.q.i.(2).

2.e In accordance with section A.3 of Part II - Facility Specific Terms and Conditions, the permittee shall maintain a leak detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

The equipment within this emissions unit which does not operate in organic hazardous air pollutant service is not required to comply with the leak detection provisions of section A.3. of Part II - Specific Facility Terms and Conditions.

2.f In accordance with 40 CFR Part 60, Subpart VV, the permittee shall maintain a LDAR program for equipment in volatile organic compound (VOC) service within this emissions unit.

The leak detection and repair program pertains to any type of pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, flange, connector, closed vent system, and any other device or system in volatile organic compound service within this emissions unit.

For equipment which is subject to the provisions of 40 CFR Part 60, Subpart VV and is also subject to section A.3 of Part II - Specific Facility Terms and Conditions, the permittee is required only to comply with section A.3 of Part II - Specific Facility Terms and Conditions. The provisions in 40 CFR 63.1(a)(3) of Subpart A do not alter the provisions in this section.

For equipment in VOC service which is subject to 40 CFR Part 60, Subpart VV but is not subject to section A.3 of Part II - Specific Facility Terms and Conditions, the permittee has elected to apply section A.3 of Part II - Specific Facility Terms and Conditions to all such equipment in the process unit, in accordance with section A.3.d of Part II - Specific Facility Terms and Conditions. All VOC in such equipment shall be considered, for purposes of applicability and compliance with section A.3 of Part II - Specific Facility Terms and Conditions as if it were organic HAP. Compliance with the provisions of section A.3 of Part II - Specific Facility Terms and Conditions, in the manner described in this section, shall be deemed to constitute compliance with 40 CFR Part 60, Subpart VV.

2.g The wastewater tanks are subject to the provisions of 40 CFR 60, Subpart Kb but are required to comply only with the sections A.1, A.2, and A.3 of Part II - Specific Facility Terms and Conditions.

II Operational Restrictions

1. In accordance with the permittee's permit application, the permittee is operating by treating the group 1 wastewater streams in the enhanced biological treatment system (2600-D). The permittee has elected to monitor the chemical oxygen demand (COD) of the biological treatment system to fulfill the requirements of section A.2.t.ii of Part II - Specific Facility Terms and Conditions. The COD of the biological treatment system shall not exceed 200 ppm as a daily average.

2. In accordance with the permittee's permit application, the permittee is operating by routing the hazardous organic air pollutant vapors from the methyl hydroperoxide destruct reactor (2472-D) to the Dow Therm process heater (305-LA).

   The minimum firebox temperature of the process heater (305-LA) shall be 1,170 degrees Fahrenheit calculated on a daily average . Whenever organic HAP emissions are vented to the process heater (305-LA), the process heater shall be operating. The vent stream shall be introduced into the flame zone of the process heater.

The process heater shall meet the conditions specified below and in section A.2.r.iii of Part II - Specific Facility Terms and Conditions.

a. reduce the total organic compound emissions, less methane and ethane, or total organic HAPs emissions vented to the control device by 95 percent, by weight, or greater; or

b. achieve an outlet total organic compound concentration, less methane and ethane, or total organic HAPs concentration of 20 ppmv on a dry basis corrected to 3% oxygen; or

c. provide a minimum residence time of 0.5 second at a minimum temperature of 760 degrees Celsius.

3. The permittee shall equip the Phenol I, II, and III Hubs and the CHP Hub with tightly fitting solid covers as specified in section A.2.z of Part II - Specific Facility Terms and Conditions.

III Monitoring and/or Recordkeeping

1. On a daily basis the permittee shall collect a sample from side A and a sample from side B of the biological treatment unit. Each sample shall be analyzed for the COD in accordance with the reactor digestion method of Hach Method 8000 (Hach Handbook of Water Analysis, 1979, Hach Chemical Company, P.O. Box 389, Loveland, CO 80537).

   The permittee shall maintain daily records of the COD value for side A and for side B of the biological treatment unit.

2. The permittee shall maintain a temperature monitoring device, equipped with a continuous recorder, in the firebox of the process heater (305-LA) in accordance with the requirements of section A.2.t.iii.(2) of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records of the process heater (305-LA) firebox temperature in accordance with section A.2.h.i of Part II - Specific Facility Terms and Conditions.

3. The permittee shall perform semi-annual visual inspections of Group 1 wastewater tanks in accordance with section A.2.t.i of Part II - Specific Facility Terms and Conditions.

   Records of the wastewater tank inspections shall be maintained in accordance with section A.2.x of Part II - Specific Facility Terms and Conditions.

4. For containers used to receive, manage, or treat Group 1 wastewater, the permittee shall comply with the monitoring requirements of sections A.2.t.i.(2) and A.2.x of Part II - Specific Facility Terms and Conditions.

The permittee shall maintain records of the container inspections in accordance with section A.2.x of Part II - Specific Terms and Conditions.

5. For individual drain systems used to receive, manage, or treat Group I wastewater, the permittee shall comply with the monitoring requirements of section A.2.t.i.(3) of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records of the individual drain system inspections in accordance with section A.2.x of Part II - Specific Facility Terms and Conditions.

6. For oil-water separators used to receive, manage, or treat Group 1 wastewater, the permittee shall comply with the monitoring requirements of section A.2.t.i.(4) of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records of the oil-water separator inspections in accordance with section A.2.x of Part II - Specific Terms and Conditions.

7. The permittee shall monitor any bypass line(s) that could divert a vent stream from a tank which contains Group 1 wastewater away from the process heater (305-LA) in accordance with section A.2.t.iii.(1) of Part II - Specific Facility Terms and Conditions.

   a. 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 section A.2.t.iii.(1)(a) of Part II - Specific Facility Terms and Conditions. The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or

   b. Secure the bypass line 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 valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line.

   The permittee shall maintain records of the flow indicator or monthly visual inspections requirements for bypass lines that could divert a vent stream away from the control device in accordance with section A.2.x of Part II - Specific Facility Terms and Conditions.

8. The permittee shall maintain procedures for the management of maintenance wastewater in accordance with section A.1.o of Part II - Specific Facility Terms and Conditions.

9. For each Group 2 process wastewater stream, the permittee shall comply with the record keeping requirements of section A.2.x.vi of Part II - Specific Facility Terms and Conditions.

10. The permittee shall maintain records for benzene waste operations in accordance with the requirements specified in 40 CFR 61.356 and sections A.4.e and A.4.f of Part II - Specific Facility Terms and Conditions.

11. Monitoring for the LDAR program shall comply with method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za Part II - Specific Facility Terms and Condtions.

    The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Condition.

12. 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 # 07-451, issued on 2/8/98 modified on xx/xx/xx: A.III.1 through A.III.11. 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 Periodic Reports in accordance with section A.2.zb.iii of Part II - Facility Specific Terms and Conditions. The Periodic Reports shall be submitted semi-annually no later than 60 calendar days after the end of each 6-month period. The reports shall include all information specified in sections A.2.g and A.2.h of Part II - Facility Specific Terms and Conditions for process vents and all information specified in A.2.w of Part II - Facility Specific Terms and Conditions for process wastewater, including reports of periods when monitored parameters are outside their established ranges.

2. The permittee shall submit reports of start-up, shutdown, and malfunction in accordance with 40 CFR 63.10(d)(5) and section A.2.zb.iv of Part II - Facility Specific Terms and Conditions. The semi-annual start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under A.2.zb.iii of Part II - Facility Specific Terms and Conditions instead of the schedule specified in 40 CFR 63.10(d)(5).

3. The permittee shall submit reports for benzene waste operations in accordance with the requirements specified in 40 CFR 61.357 and section A.4.g of Part II - Specific Facility Terms and Conditions.

4. Reports required by section A.1, A.2, and A.3 of Part II - Specific Facility Terms and Conditions shall be submitted to USEPA Region 5, with a copy to the Portsmouth local air agency, in accordance with section A.1.m.iii of Part II - Specific Facility Terms and Conditions.

5. The permittee shall submit semi-annual reports for the LDAR program in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

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 #07-451, issued on 2/8/98 and modified on xx/xx/xx: 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 section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 192.47 pounds per day.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the emissions from the process vents listed below. The emissions from each process vent shall be determined at maximum operating conditions using the calculations and emission factors contained in AP-42, Volume 1, 5th Edition, Chapter 1, Section 7.1, dated September, 1997 unless noted otherwise. Alternate emission factors may be used with prior approval by the Portsmouth local air agency.

i. WP01 - oily waste sump (2421-A)

ii. WP02 - wastewater holding tank (2426-F)

iii. WP03 - wastewater holding tank (2427-F)

iv. WP04 - wastewater holding tank (2428-F)

v. WP05 - coalescer (2402-L) and decanter tank (2421-F)

vi. WP06 - neutralization sump (2427-A)

vii. WP11 - local area pad rainfall (2428-A)

viii. WP13 - combined vent streams from:

(1) waste oil decanter tank (2489-F)

(2) wastewater tank (2490-F)

ix. WP14 - biotreatment plant (2600-D)

Emissions shall be determined using the calculations and factors contained in the SIMs computer program, or other equivalent factors used to estimate air emissions from wastewater collection, storage, treatment, and disposal systems with prior approval by the Portsmouth local air agency.

x. WP15 - process wastewater collection tank (401-F)

xi. WP16 - MHP feed surge tank (2470-F) with condenser (2473-C)

The controlled emissions rate shall be calculated with the factors and equations described above at the condenser outlet temperature.

xii. WP50 - storm water tank (2439-F)

Emissions shall be determined using the calculations and factors contained in the SIMs computer program, or other equivalent factors used to estimate air emissions from wastewater collection, storage, treatment, and disposal systems with prior approval by the Portsmouth local air agency.

xiii. WP51 - storm water tank (2440-F)

Emissions shall be determined using the calculations and factors contained in the SIMs computer program, or other equivalent factors used to estimate air emissions from wastewater collection, storage, treatment, and disposal systems with prior approval by the Portsmouth local air agency.

xiv. WP52 - storm water tank (2441-F)

Emissions shall be determined using the calculations and factors contained in the SIMs computer program, or other equivalent factors used to estimate air emissions from wastewater collection, storage, treatment, and disposal systems with prior approval by the Portsmouth local air agency.

xv. WP53 - storm water tank (2442-F)

Emissions shall be determined using the calculations and factors contained in the SIMs computer program, or other equivalent factors used to estimate air emissions from

wastewater collection, storage, treatment, and disposal systems with prior approval by the Portsmouth local air agency.

xvi. WP54 - storm water sump (2201-A)

Emissions shall be determined using the calculations and factors contained in the SIMs computer program, or other equivalent factors used to estimate air emissions from wastewater collection, storage, treatment, and disposal systems with prior approval by the Portsmouth local air agency.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 18 or 25.

1b. Emission Limitation -

Volatile organic compound emissions shall not exceed 35.13 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable daily emission limitation by 365 days per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the daily emission limitation is maintained.

1c. Emission Limitation -

Acetone emissions shall not exceed 23.72 pounds per day.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the emissions from the process vents listed below. The emissions from each process vent shall be determined at maximum operating conditions using the calculations and emission factors contained in AP-42, Volume 1, 5th Edition, Chapter 1, Section 7.1, dated September, 1997 unless noted otherwise. Alternate emission factors may be used with prior approval by the Portsmouth local air agency.

i. WP01 - oily waste sump (2421-A)

ii. WP02 - wastewater holding tank (2426-F)

iii. WP03 - wastewater holding tank (2427-F)

iv. WP04 - wastewater holding tank (2428-F)

v. WP05 - coalescer (2402-L)

vi. WP06 - neutalization sump (2427-A)

vii. WP11 - local area pad rainfall (2428-A)

viii. WP13 - combined vent streams from:

(1) waste oil decanter tank (2489-F)

(2) wastewater tank (2490-F)

ix. WP14 - biotreatment plant (2600-D)

Emissions shall be determined using the calculations and factors contained in the SIMs computer program, or other equivalent factors used to estimate air emissions from wastewater collection, storage, treatment, and disposal systems with prior approval by the Portsmouth local air agency.

WP15 - process wastewater collection tank (401-F)

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 18 or 25.

1d. Emission Limitation -

Acetone emissions shall not exceed 4.33 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable daily emission limitation by 365 days per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the daily emission limitation is maintained.

1e. Emission Limitation -

Ammonia emissions shall not exceed 185.32 pounds per day.

Appliable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the emissions from the process vents listed below. The emissions from each process vent shall be determined at maximum

operating conditions using the calculations and emission factors contained in AP-42, Volume 1, 5th Edition, Chapter 1, Section 7.1, dated September, 1997 unless noted otherwise. Alternate emission factors may be used with prior approval by the Portsmouth local air agency.

i. WP02 - wastewater holding tank (2426-F)

ii. WP13 - combined vent streams from:

(1) waste oil decanter tank (2489-F)

(2) wastewater tank (2490-F)

iii. WP14 - biotreatment plant (2600-D)

Emissions shall be determined using the calculations and factors contained in the SIMs computer program, or other equivalent factors used to estimate air emissions from wastewater collection, storage, treatment, and disposal systems with prior approval by the Portsmouth local air agency.

iv. WP50 - storm water tank (2439-F)

Emissions shall be determined using the calculations and factors contained in the SIMs computer program, or other equivalent factors used to estimate air emissions from wastewater collection, storage, treatment, and disposal systems with prior approval by the Portsmouth local air agency.

v. WP51 - storm water tank (2440-F)

Emissions shall be determined using the calculations and factors contained in the SIMs computer program, or other equivalent factors used to estimate air emissions from wastewater collection, storage, treatment, and disposal systems with prior approval by the Portsmouth local air agency.

vi. WP52 - storm water tank (2441-F)

Emissions shall be determined using the calculations and factors contained in the SIMs computer program, or other equivalent factors used to estimate air emissions from wastewater collection, storage, treatment, and disposal systems with prior approval by the Portsmouth local air agency.

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in CTM-027.

1f. Emission Limitation -

Ammonia emissions shall not exceed 33.82 tons per year.

Appliable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable daily emission limitation by 365 days per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the daily emission limitation is maintained.

1g. Emission Limitation -

Total particulate emissions from the process heater (305-LA), of all sources vented to the process heater, shall not exceed 0.020 pound per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance shall be demonstrated by dividing the particulate emission factor of 1.9 pounds of particulate per mmscf of natural gas and process vent gas fired, by the heat value of the natural gas, 1100 mmBtu per mmscf. The particulate emission factor was obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.4, Table 1.4-2, dated July, 1998.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(9).

1h. Emission Limitation -

Total volatile organic compound emissions from the process heater (305-LA), of all sources vented to the process heater, shall not exceed 1.89 pounds per hour.

Applicable Compliance Method:

Compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18.

1i. Emission Limitation -

Total volatile organic compound emissions from the process heater (305-LA), of all sources vented to the process heater, shall not exceed 8.29 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1j. Emission Limitation -

Total sulfur dioxide emissions from the process heater (305-LA), of all sources vented to the process heater, shall not exceed 0.01 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the SO2 emission factor of 0.6 pound of SO2 per mmscf of natural gas and process vent gas fired, by the maximum quantity of natural gas and process vent gas fired per hour, in mmscf. The SO2 emission factor was obtained from AP-42, Volume I, 5th Edition, Chapter 1, Section 1.4, Table 1.4-2, dated July, 1998.

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 or 6c.

1k. Emission Limitation -

Total sulfur dioxide emissions from the process heater (305-LA), of all sources vented to the process heater, shall not exceed 0.03 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1l. Emission Limitation -

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

1m. Emission Limitation -

reduce the total organic compound emissions, less methane and ethane, or total organic HAPs emissions vented to the control device by 95 percent, by weight, or greater; or

achieve an outlet total organic compound concentration, less methane and ethane, or total organic HAPs concentration of 20 ppmv on a dry basis corrected to 3% oxygen.

Applicable Compliance Method:

In accordance with section A.2.v.iv of Part II - Specific Facility Terms and Conditions, the concentration (ppm) and/or control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the process heater) shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Method 1 through 4, and 18. 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.

1n. Emission Limitation -

The permittee shall achieve the Required Mass Removal (RMR) of Table 9 compounds for Group 1 wastewater streams.

Applicable Compliance Method:

Compliance shall be demonstrated if the actual mass removal (AMR) is greater than or equal to the RMR. The RMR and AMR shall be calculated in accordance with the equations and procedures in section A.2.v.ii of Part II - Specific Facility Terms and Conditions.

2. The permittee shall conduct, or have conducted, emission testing for the process waste heater (305-LA) in accordance with the following requirements:

a. The emission testing shall be conducted within 24 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable emission rate for VOC and the HAP concentration (ppm) and/or control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the process heater).

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): U. S. EPA Methods 1 through 4 and 18, 40 CFR Part 60, Appendix A. Alternative U. S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth local air agency.

e. If required, 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. 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 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.

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 #07-00451, issued on 2/8/98 and modified on xx/xx/xx: 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

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: Phenol III Plant (P012)
Activity Description: Phenol III Production Plant

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
phenol III plant with a catalytic oxidizer (4230-L)	OAC rule 3745-31-05(A)(3) (PTI 07-00451)	Volatile organic compound emissions from the catalytic oxidizer shall not exceed 69.26 pounds per day and 12.64 tons per year. Acetone emissions from the catalytic oxidizer shall not exceed 4.93 pounds per day and 0.90 ton per year. Nitrogen oxide emissions from the catalytic oxidizer shall not exceed 41.32 pounds per day and 7.54 tons per year. Acetone emissions from the process vessels shall not exceed 4.32 tons per year. Negligible emissions of particulate, particulate less than ten microns and

	sulfur dioxide from the catalytic oxidizer. Estimated fugitive equipment leak emissions are 28.10 tons per year of volatile organic compounds and 4.58 tons per year of acetone.
40 CFR 52.21 and OAC rule 3745-31-11 through 3745-31-20	See section A.I.2.a. below. Volatile organic compound emissions shall be reduced by 99%.
40 CFR Part 63, Subparts F, G, and H	
40 CFR Part 60, Subpart NNN	See sections A.I.2.a through A.I.2.c below.
40 CFR Part 60, Subpart III	See section A.I.2.f below.
40 CFR Part 60, Subpart Kb	See section A.I.2.g below.
40 CFR Part 60, Subpart VV	See section A.I.2.h below.
OAC rule 3745-21-09(DD)	See section A.I.2.d below.
OAC rule 3745-21-09(EE)	See section A.I.2.e below.
OAC rule 3745-17-07(A)	See sections A.I.2.i and A.I.2.j below.
OAC rule 3745-17-11(B)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. The uncontrolled mass rate of particulate emissions from the catalytic oxidizer is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table 1 of OAC rule 3745-17-11 does not apply because the process weight, as

OAC rule 3745-18-06	defined in OAC rule 3745-17-01(B)(14), is equal to zero. See section A.I.2.k below.

2. Additional Terms and Conditions

2.a In accordance with section A.2.c.ii of Part II - Specific Facility Terms and Conditions, for all Group 1 process vent streams, the emissions of total organic HAPs shall be reduced by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. The emission reduction or concentration shall be calculated on a dry basis, corrected to 3% oxygen.

2.b In accordance with section A.3 of Part II - Facility Specific Terms and Conditions, the permittee shall maintain a leak detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

2.c In accordance with 40 CFR Part 60, Subpart VV, the permittee shall maintain a LDAR program for equipment in volatile organic compound (VOC) service within this emissions unit.

The leak detection and repair program pertains to any type of pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, flange, connector, closed vent system, and any other device or system in volatile organic compound service within this emissions unit.

For equipment which is subject to the provisions of 40 CFR Part 60, Subpart VV and is also subject to section A.3 of Part II - Specific Facility Terms and Conditions, the permittee is required only to comply with section A.3 of Part II - Specific Facility Terms and Conditions. The provisions in 40 CFR 63.1(a)(3) of Subpart A do not alter the provisions in this section.

For equipment in VOC service which is subject to 40 CFR Part 60, Subpart VV but is not subject to section A.3 of Part II - Specific Facility Terms and Conditions, the permittee has elected to apply section A.3 of Part II - Specific Facility Terms and Conditions to all such equipment in the process unit, in accordance with section A.3.d of Part II - Specific Facility Terms and Conditions. All VOC in such equipment shall be considered, for purposes of applicability and compliance with section A.3 of Part II - Specific Facility

Terms and Conditions as if it were organic HAP. Compliance with the provisions of section A.3 of Part II - Specific Facility Terms and Conditions, in the manner described in this section, shall be deemed to constitute compliance with 40 CFR Part 60, Subpart VV.

2.d In accordance with OAC rule 3745-21-09(DD), the permittee shall maintain a LDAR program for equipment in VOC service within this emissions unit.

In lieu of complying with the requirements specified in paragraphs (DD)(2) to (DD)(10) of OAC rule 3745-21-09(DD), the permittee shall comply with the equivalent requirement outlined in section A.3 of Part II - Specific Facility Terms and Conditions.

2.e The following distillation units and associated recovery equipment are subject to the provisions of 40 CFR Part 60, Subpart NNN but are required to comply only with sections A.1 and A.2 of Part II - Specific Facility Terms and Conditions for Group 1 process vents:

Distillation Column (equipment number)
Primary Cumene Stripper (4202-E)
Secondary Cumene Stripper (4203-E)
Crude Acetone Column (4301-E)
Acetone Product Column (4302-E)
Crude Phenol Column (4304-E)
Hydrocarbon Removal Column (4305-E)
Phenol Finishing Column (4307-E)

2.f The following equipment is subject to the provisions of 40 CFR 60, Subpart III but are required to comply only with the terms and conditions of sections A.1, A.2 and A.3 of Part II - Specific Facility Terms and Conditions:

Air Oxidation reactor train and it's combined vent stream (4201-DA, 4201-DB, 4201-DC)

Oxidation Process Surge Drum (4208-F)

2.g The Group 2 storage vessels within this process unit are subject to the provisions of 40 CFR Part 60, Subpart Kb but are required to comply only with sections A.1, A.2, and A.3 of Part II - Specific Facility Terms and Conditions.

2.h [OAC rule 3745-21-09(EE)(1)]
Except where exempted under OAC rule 3745-21-09(EE)(2), the permittee shall vent process vent streams from air oxidation processes, producing a chemical listed in Appendix A of OAC rule 3745-21-09, to a combustion device which:

i. reduces the VOC emissions vented to it with an efficiency of at least 98 percent, by weight; or

ii. emits a VOC concentration less than 20 ppm by volume, dry basis.

2.i [OAC rule 3745-21-09(EE)(2)(b)]
Any process vent stream or combination of process vent streams which maintain a TRE of value greater than 1.0 shall be exempt from the requirements of OAC rule 3745-21-09(EE)(1). If an air oxidation process has more than one process vent stream, the TRE shall be based upon a combination of the process vent streams. The TRE shall be calculated in accordance with OAC rule 3745-21-09(EE)(3).

2.j The catalytic oxidizer is fueled with natural gas and process vent gas only and has no process weight as defined in OAC rule 3745-18-01(B)(13). Therefore, this emissions unit is exempt from the emissions limitation established in OAC rule 3745-18-06(E).

II Operational Restrictions

1. In accordance with the permittee's permit application, the permittee is operating by routing the organic vapors from Group 1 process vents from this emissions unit to a catalytic oxidizer (4230-L) in order to comply with the percent reduction requirement or concentration limit specified in section A.2.c.ii of Part II - Specific Facility Terms and Conditions.

   The minimum temperature of gases at the inlet of the catalyst bed shall be 752 degrees Fahrenheit (400 degrees Celsius) calculated on a daily average.

   The minimum temperature difference of the gases across the catalyst bed shall be 49 degrees Fahrenheit (9.44 degrees Celsius) calculated on a daily average.

2. The permittee shall burn only process vent gases and/or natural gas in the catalytic oxidizer (4230-L).

3. The Phenol III Hub and the CHP Hub shall be equipped with tightly fitting solid covers in accordance with section A.2.z of Part II - Specific Facility Terms and Conditions.

4. Each surge control vessel or bottoms receiver tank which meets one of the conditions listed in section A.3.q of Part II - Specific Facility Terms and Conditions shall be equipped with a closed vent system that routes the organic vapors from the surge control vessel or bottoms receiver tank back to the process or to a control device that complies with the requirements of section A.3.s of Part II - Specific Facility Terms and Conditions or shall be equipped with a fixed roof and an internal floating roof or an external floating roof.

In accordance with the permittee's permit application, the following surge control vessels and bottoms receiver tanks, do not exceed the threshold triggers of A.3.q.i through A.3.q.iv of Part II - Specific Facility Terms and Conditions. Therefore, these vessels are not required to meet the conditions listed in section A.3.q of Part II - Specific Facility Terms and Conditions at the time of permit issuance: 4213-F, 4214-F, 4505-F, 4330-F, and 4721-F.

III Monitoring and/or Recordkeeping

1. The permittee shall maintain temperature monitoring devices, equipped with continuous recorders, immediately before and after the catalyst bed of the catalytic oxidizer (4230-L) in accordance with the requirements of section A.2.d.i of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records of the temperature immediately prior to the catalyst bed, immediately after the catalyst bed, and the temperature difference across the catalyst bed in accordance with section A.2.h.i of Part II - Specific Facility Terms and Conditions.

2. The permittee shall monitor any bypass line(s) that could divert a vent stream away from the catalytic oxidizer (4230-L) in accordance with section A.2.d.iv of Part II - Specific Facility Terms and Conditions. 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 section A.2.d.iv of Part II - Specific Facility Terms and Conditions.

   a. 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 section A.2.h.i.(3) of Part II - Specific Facility Terms and Conditions. The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or

   b. Secure the bypass line 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 valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line.

   The permittee shall maintain records of the flow indicator requirements for bypass lines that could divert a vent stream away from the catalytic oxidizer in accordance with sections A.2.h.i.(3) and A.2.h.i.(4) of Part II - Specific Facility Terms and Conditions.

3. Whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent, the permittee shall recalculate the TRE index value, flow, or organic HAP concentration, as necessary, to determine if the vent is Group 1 or Group 2 in accordance with section A.2.e.v of Part II - Specific Facility Terms and Conditions.

The permittee shall maintain records of process vent group determinations in accordance with sections A.2.g and A.2.h.iii, A.2.h.iv, and A.2.h.v of Part II - Specific Facility Terms and Conditions.

4. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

5. For each Group 2 storage vessel, the permittee shall comply with the record keeping requirements of section A.2.i of Part II - Specific Facility Terms and Conditions.

6. For each Group 2 process wastewater stream, the permittee shall comply with the record keeping requirements of section A.2.x of Part II - Specific Facility Terms and Conditions.

7. The permittee shall monitor the cooling water at the inlet and outlet of the Phenol III heat exchange system for the presence of cumene and phenol in accordance with sections A.1.n.ii, A.1.n.iii, and A.1.n.iv of Part II - Specific Facility Terms and Conditions. On a quarterly basis, the permittee shall obtain three samples from the inlet and three samples from the outlet of the heat exchanger. The permittee shall analyze the samples in accordance with the methods and procedures of Method 625 of 40 CFR Part 163, Appendix A. The results of the analysis shall be evaluated as specified in section A.2.n.ii.(6).

   The permittee shall maintain heat exchange system records in accordance with section A.1.n.v of Part II - Specific Facility Terms and Conditions.

8. The permittee shall maintain procedures for the management of maintenance wastewater in accordance with section A.1.o of Part II - Specific Facility Terms and Conditions.

9. For each day during which the permittee burns a fuel other than process vent gases and/or natural gas in the catalytic oxidizer (4230-L), the permittee shall maintain a record of the type and quantity of fuel burned.

10. [OAC rule 3745-21-09(EE)(3)(a)]
    The total resource effectiveness value for an air oxidation process shall be calculated in accordance with the following equations:

    i. For nonchlorinated process vent streams with a net heating value less than or equal to 3.6 and for all chlorinated process vent streams:

       TRE =[a+bW^.88 + cW + dWH + eW^.88 H^.88 + f W^.5]/E

where:

TRE = total resource effectiveness value;

E = maximum hourly VOC emission rate at the vent stream design flowrate (W), in kilograms of VOC per hour (kg/hr);

W = vent stream design flowrate at a standard temperature of 20 degrees Celsius, in standard cubic meters per minute (scm/min);

H = vent stream net heating value, as determined in accordance with OAC rule 3745-21-10(P)(2), in megajoules per standard cubic meter (106J/scm); and

a, b, c, d, e, and f = applicable coefficients from Appendix B of OAC rule 3745-21-09.

ii. For nonchlorinated process vent streams with a net heating value greater than 3.6:

TRE = [a+bW^.88 + cW + dWH + eW^.88 H^.88 + f(WH / 3.6)^.5]/E

where TRE, E, W, H, a, b, c, d, e and f are defined as above.

11. [OAC rule 3745-21-09(EE)(3)(b)]
The parameters used in the total resource effectiveness equations shall be measured at the outlet(s) of the final product recovery device(s) where VOC is reclaimed for beneficial reuse (recycle, sale or use in another part of the process).

12. The permittee shall maintain records for benzene waste operations in accordance with the requirements specified in 40 CFR 61.356 and sections A.4.e and A.4.f of Part II - Specific Facility Terms and Conditions.

13. 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 # 07-451, issued on 2/8/98 and modified on xx/xx/xx: A.III.1 through A.III.12. 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 Periodic Reports in accordance with section A.2.zb.iii of Part II - Specific Facility Terms and Conditions. The Periodic Reports shall be submitted semi-annually no later than 60 calendar days after the end of each 6-month period. The reports shall include all

information specified in A.2.g and A.2.h of Part II - Specific Facility Terms and Conditions for process vents and all information specified in A.2.w of Part II - Specific Facility Terms and Conditions for process wastewater, including reports of periods when monitored parameters are outside their established ranges.

2. The permittee shall submit reports of start-up, shutdown, and malfunction in accordance with 40 CFR 63.10(d)(5) and section A.2.zb.iv of Part II - Specific Facility Terms and Conditions. The semi-annual start-up, shutdown, and malfunction reports may be submitted on the same schedule as the Periodic Reports required under A.3.zb.iii of Part II - Specific Facility Terms and Conditions instead of the schedule specified in 40 CFR 63.10(d)(5).

3. Whenever the recalculations (performed whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent) determine one of the criteria below have been met, the permittee shall submit a report as specified in A.2.h.vii through A.2.h.x of Part II - Specific Facility Terms and Conditions and the permittee shall comply with the appropriate provisions in section A.2.c of Part II - Specific Facility Terms and Conditions by the dates specified in A.1 of Part II - Specific Facility Terms and Conditions.

   a. the recalculated TRE index value is less than or equal to 1.0;

   b. the recalculated TRE index value is less than or equal to 4.0 but greater than 1.0;

   c. the recalculated flow rate is greater than or equal to 0.005 standard cubic meter per minute; or

   d. the recalculated concentration is greater than or equal to 50 parts per million by volume.

4. The permittee shall submit semi-annual reports for the LDAR program for equipment in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

5. For each heat exchange system, the permittee shall comply with the reporting requirements of section A.1.n.vi of Part II - Specific Facility Terms and Conditions.

6. The permittee shall submit reports of any fuels burned in the catalytic oxidizer (4230-L) other than process vent gases and/or natural gas within thirty (30) days to the local air pollution control office, including the date, type, and amount of any such fuel burned.

7. The permittee shall submit reports for benzene waste operations in accordance with the requirements specified in 40 CFR 61.357 and section A.4.g of Part II - Specific Facility Terms and Conditions.

8. Reports required by sections A.1, A.2, and A.3 of Part II - Specific Facility Terms and Conditions shall be submitted to USEPA Region 5, with a copy to the Portsmouth local air agency, in accordance with section A.1.m.iii of Part II - Specific Facility Terms and Conditions.

9. 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 #07-451, issued on 2/8/98 and modified on xx/xx/xx: A.IV.1 through A.IV.8. 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:

1a. Emission Limitation -

Volatile organic compound emissions from the catalytic oxidizer shall not exceed 69.26 pounds per day.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18.

1b. Emission Limitation -

Volatile organic compound emissions from the catalytic oxidizer shall not exceed 12.64 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable daily emission limitation by 365 days per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the daily emission limitation is maintained.

1c. Emission Limitation -

Acetone emissions from the catalytic oxidizer shall not exceed 4.93 pounds per day.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18.

1d. Emission Limitation -

Acetone emissions from the catalytic oxidizer shall not exceed 0.90 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable daily emission limitation by 365 days per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the daily emission limitation is maintained.

1e. Emission Limitation -

Nitrogen oxide emissions from the catalytic oxidizer shall not exceed 41.32 pounds per day.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the NOx emission factor of 267.9 pounds of NOx per mmscf of natural gas fired, by the maximum quantity of natural gas fired per hour, in mmscf. The NOx emission factor was calculated from the results of the April 5, 2000 stack test.

If required in accordance with OAC rule 3745-15-04, compliance shall also be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or 7e.

1f. Emission Limitation -

Nitrogen oxide emissions from the catalytic oxidizer shall not exceed 7.54 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable daily emission limitation by 365 days per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the daily emission limitation is maintained.

1g. Emission Limitation -

Negligible emissions of particulate, particulate less than ten microns, and sulfur dioxide from the catalytic oxidizer.

Applicable Compliance Method:

Emissions of particulate, particulate less than 10 microns, and sulfur dioxide are based upon vendor guarantee:

0.062 pound per hour of particulate;
0.062 pound per hour of particulate less than 10 microns; and
0.0067 pound per hour of sulfur dioxide.

1h. Emission Limitation -

Estimated fugitive emissions and process vessel emissions are 28.10 tons per year of volatile organic compounds.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the emissions from the fugitive equipment leaks and process vessels listed below.

i. Process Vessel Emissions

The emissions from each process vent shall be determined at maximum operating conditions using the calculations and emission factors contained in AP-42, Volume 1, 5th Edition, Chapter 1, Section 7.1, dated September, 1997. Alternative emission factors may be used with prior approval from the Portsmouth local air agency.

(1) P302 - acetone rundown tank (4312-FA) with an internal floating roof

(2) P303 - acetone rundown tank (4312-FB) with an internal floating roof

(3) P304 - ethylene glycol cooling system surge tank (4721-F)

ii. Fugitive Emissions

Compliance shall be demonstrated by calculating the sum of the emission rates from each type of equipment in VOC service within the process. Equipment types include: valves, pump seals, pressure relief valves, connectors, open ended lines, and sampling connections. For each equipment type use the SOCMI average emission factors (EPA-453/R-93-026, Table 2-1, dated 6/93) and the following equation:

VOC emission rate from a given equipment type (pounds per hour) = average emission factor (pounds per hour per equipment type) times the average weight fraction of VOC in the stream times the number of pieces of the equipment type in the stream times 8,760 hours per year divided by 2,000 pounds per ton.

SOCMI No-Leak emission factors may be used to calculate emissions from equipment in heavy liquid service as outlined in a Texas Natural Resources Conservation Commission document "Guidance Package for Chemical Sources - Equipment Leak Fugitives" dated March, 1995.

1i. Emission Limitation -

Estimated fugitive emissions and process vessel emissions are 8.9 tons per year of acetone.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the emissions from the fugitive equipment leaks and process vessels listed below.

i. Process Vessel Emissions

The emissions from each process vent shall be determined at maximum operating conditions using the calculations and emission factors contained in AP-42, Volume 1, 5th Edition, Chapter 1, Section 7.1, dated September, 1997. Alternative emission factors may be used with prior approval from the Portsmouth local air agency.

(1) P302 - acetone rundown tank (4312-FA) with an internal floating roof

(2) P303 - acetone rundown tank (4312-FB) with an internal floating roof

(3) P304 - ethylene glycol cooling system surge tank (4721-F)

ii. Fugitive Emissions

Compliance shall be demonstrated by calculating the sum of the emission rates from each type of equipment in acetone service within the process. Equipment types include: valves, pump seals, pressure relief valves, connectors, open ended lines, and sampling connections. For each equipment type use the SOCMI average emission factors (EPA-453/R-93-026, Table 2-1, dated 6/93) and the following equation:

Acetone emission rate from a given equipment type (pounds per hour) = average emission factor (pounds per hour per equipment type) times the average weight fraction of acetone in the stream times the number of pieces of the equipment type in the stream times 8,760 hours per year divided by 2,000 pounds per ton.

SOCMI No-Leak emission factors may be used to calculate emissions from equipment in heavy liquid service as outlined in a Texas Natural Resources Conservation Commission document "Guidance Package for Chemical Sources - Equipment Leak Fugitives" dated March, 1995.

1j. Emissions Limitation -

Volatile organic compound emissions shall be reduced by 99%.

Applicable Compliance Method:

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the catalytic oxidizer) shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Method 1 through 4, and 18. 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.

1k. Emission Limitation -

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required in accordance with OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

1l. Emissions Limitation -

The emissions of total organic HAP from Group 1 process vents shall be reduced by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. The emission reduction or concentration shall be calculated on a dry basis, corrected to 3% oxygen.

Applicable Compliance Method:

The concentration (ppm) and/or control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the catalytic oxidizer) shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Method 1 through 4, and 18. 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.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

   a. The emission testing shall be conducted within 24 months of permit issuance.
   b. The emission testing shall be conducted to demonstrate compliance with the allowable emission rate for VOC and the HAP concentration (ppm) and/or control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the catalytic oxidizer).

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): U. S. EPA Methods 1 through 4 and 18, 40 CFR Part 60, Appendix A. Alternative U. S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

   d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth local air agency.

   e. If required, 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. 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 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.

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 #07-451, issued on 2/8/98 and modified on xx/xx/xx: 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

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: 2003-F (T022)
Activity Description: Light Hydrocarbon Fuel 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
200,000-gallon light hydrocarbon fuel storage tank (2003-F) with an internal floating roof and submerged fill	OAC rule 3745-31-05(A)(3) (PTI 07-232)	Volatile organic compound emissions shall not exceed 0.159 ton per year.
	40 CFR Part 63, Subparts F, G, and H	See section A.I.2.b and A.III.1 below.
	40 CFR Part 60, Subpart Kb	See section A.I.2.a below.

2. Additional Terms and Conditions

2.a This group 2 storage vessel is subject to the provisions of 40 CFR Part 60, Subpart Kb but is required to comply only with sections A.1, A.2, and A.3 of Part II - Specific Facility Terms and Conditions.

2.b In accordance with section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak and detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall comply with the record keeping requirements for group 2 storage vessels of section A.2.i. of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent or as more stringent than the monitoring and record keeping requirements contained in Permit to Install #07-232, issued on 02/27/91: A.III.1 and A.III.2. The monitoring and record keeping 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 semi-annual reports for the LDAR program for equipment in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent or as more stringent than the reporting requirements contained in Permit to Install #07-232, issued on 02/27/91: 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 limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 0.159 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated using maximum throughput and the calculations and emission factors contained in AP-42, Volume I, 5th Edition, Chapter 1, Section 7.1, dated January 1995.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent or as more stringent than the testing requirements contained in Permit to Install #07-232, issued on 02/27/91: A.V.1. The testing 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: 2101-FA (T023)
Activity Description: Cumene 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
1,504,000-gallon cumene storage tank (2101-FA) with a fixed roof and submerged fill	OAC rule 3745-31-05(A)(3) (PTI 07-451)	Volatile organic compound emissions shall not exceed 5.86 tons per year.
	40 CFR Part 63, Subparts F, G, and H	See section A.2.a and A.III.1 below.

2. Additional Terms and Conditions

2.a In accordance with section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak and detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall comply with the record keeping requirements for group 2 storage vessels of section A.2.i. of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent or as more stringent than the monitoring and record keeping requirements contained in Permit to Install #07-451, issued on 02/08/98: A.III.1 and A.III.2. The monitoring and record keeping 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 semi-annual reports for the LDAR program for equipment in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent or as more stringent than the reporting requirements contained in Permit to Install #07-451, issued on 02/08/98: 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 limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 5.86 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated using maximum throughput and the calculations and emission factors contained in AP-42, Volume I, 5th Edition, Chapter 1, Section 7.1, dated September , 1997.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent or as more stringent than the testing requirements contained in Permit to Install #07-451, issued on 02/08/98: A.V.1. The testing 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: 2101-FB (T024)
Activity Description: Cumene 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
1,504,000-gallon cumene storage tank (2101-FB) with a fixed roof and submerged fill	OAC rule 3745-31-05(A)(3) (PTI 07-451)	Volatile organic compound emissions shall not exceed 5.86 tons per year.
	40 CFR Part 63, Subparts F, G, and H	See section A.III.1 below.

2. Additional Terms and Conditions

2.a In accordance with section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak and detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall comply with the record keeping requirements for group 2 storage vessels of section A.2.i. of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent or as more stringent than the monitoring and record keeping requirements contained in Permit to Install #07-451, issued on 02/08/98: A.III.1 and A.III.2. The monitoring and record keeping 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 semi-annual reports for the LDAR program for equipment in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent or as more stringent than the reporting requirements contained in Permit to Install #07-451, issued on 02/08/98: 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 limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 5.86 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated using maximum throughput and the calculations and emission factors contained in AP-42, Volume I, 5th Edition, Chapter 1, Section 7.1, dated September , 1997.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent or as more stringent than the testing requirements contained in Permit to Install #07-451, issued on 02/08/98: A.V.1 . The testing 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: 2102-FA (T025)
Activity Description: Phenol 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
993,000-gallon phenol storage tank (2102-FA) with a fixed roof and submerged fill	OAC rule 3745-31-05(A)(3) (PTI 07-451)	Volatile organic compound emissions shall not exceed 4.93 tons per year.
	40 CFR Part 63, Subparts F, G, and H	See section A.III.1 below.

2. Additional Terms and Conditions

2.a In accordance with section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak and detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall comply with the record keeping requirements for group 2 storage vessels of section A.2.i. of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent or as more stringent than the monitoring and record keeping requirements contained in Permit to Install #07-451, issued on 02/08/98: A.III.1 and A.III.2. The monitoring and record keeping 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 semi-annual reports for the LDAR program for equipment in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent or as more stringent than the reporting requirements contained in Permit to Install #07-451, issued on 02/08/98: 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 limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 4.93 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated using maximum throughput and the calculations and emission factors contained in AP-42, Volume I, 5th Edition, Chapter 1, Section 7.1, dated September , 1997.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent or as more stringent than the testing requirements contained in Permit to Install #07-451, issued on 02/08/98: A.V.1 . The testing 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: 2102-FB (T026)
Activity Description: Phenol 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
993,000-gallon phenol storage tank (2102-FB) with a fixed roof and submerged fill	OAC rule 3745-31-05(A)(3) (PTI 07-451)	Volatile organic compound emissions shall not exceed 4.93 tons per year.
	40 CFR Part 63, Subparts F, G, and H	See section A.III.1 below.

2. Additional Terms and Conditions

2.a In accordance with section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak and detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall comply with the record keeping requirements for group 2 storage vessels of section A.2.i. of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent or as more stringent than the monitoring and record keeping requirements contained in Permit to Install #07-451, issued on 02/08/98: A.III.1 and A.III.2. The monitoring and record keeping 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 semi-annual reports for the LDAR program for equipment in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent or as more stringent than the reporting requirements contained in Permit to Install #07-451, issued on 02/08/98: 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 limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 4.93 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated using maximum throughput and the calculations and emission factors contained in AP-42, Volume I, 5th Edition, Chapter 1, Section 7.1, dated September , 1997.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent or as more stringent than the testing requirements contained in Permit to Install #07-451, issued on 02/08/98: A.V.1 . The testing 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: 2104-F (T029)
Activity Description: Heavy Hydrocarbons 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
200,000-gallon heavy hydrocarbon storage tank (2104-F) with a fixed roof, submerged fill, a venturi scrubber (2502-LF), and a condenser (2105-C)	OAC rule 3745-31-05(A)(3) (PTI 07-232)	Volatile organic compound emissions shall not exceed 0.40 ton per year. See section A.I.2.a below.
	40 CFR Part 63, Subparts F, G, and H	See section A.III.1 below.

2. Additional Terms and Conditions

2.a The closed vent system for storage tanks T029, T030, and T063 shall be designed to collect all VOC vapors and gases discharged from the storage vessels operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in 40 CFR Part 60, Subpart VV.

In accordance with 40 CFR Part 60, Subpart VV, the permittee shall maintain a leak detection and repair (LDAR) program for equipment in volatile organic compound service within this emissions unit.

The leak detection and repair program pertains to any type of pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, flange,

connector, closed vent system, and any other device or system in volatile organic compound service within this emissions unit.

For equipment which is subject to the provisions of 40 CFR Part 60, Subpart VV and is also subject to section A.3 of Part II - Specific Facility Terms and Conditions, the permittee is required only to comply with section A.3 of Part II - Specific Facility Terms and Conditions. The provisions in 40 CFR 63.1(a)(3) of Subpart A do not alter the provisions in this section.

For equipment in VOC service which is subject to 40 CFR Part 60, Subpart VV but is not subject to section A.3 of Part II - Specific Facility Terms and Conditions, the permittee has elected to apply section A.3 of Part II - Specific Facility Terms and Conditions to all such equipment in the process unit, in accordance with section A.3.d of Part II - Specific Facility Terms and Conditions. All VOC in such equipment shall be considered, for purposes of applicability and compliance with section A.3 of Part II - Specific Facility Terms and Conditions as if it were organic HAP. Compliance with the provisions of section A.3 of Part II - Specific Facility Terms and Conditions, in the manner described in this section, shall be deemed to constitute compliance with 40 CFR Part 60, Subpart VV.

2.b In accordance with section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak and detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall comply with the record keeping requirements for group 2 storage vessels of section A.2.i. of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

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 # 07-232, issued on 2/27/91: 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 semi-annual reports for the LDAR program in accordance with the requirements of section A.3.zc.ii of Part II - Facility Specific Terms and Conditions.

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 #07-232, issued on 2/27/91: 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 limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 0.40 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated using maximum throughput and the calculations and emission factors contained in AP-42, Volume I, 5th Edition, Chapter 1, Section 7.1, dated January, 1995.

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 #07-232, issued on 2/27/91: 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: 2105-F (T030)
Activity Description: Heavy Hydrocarbons 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
246,000-gallon heavy hydrocarbon storage tank (2105-F) with a fixed roof, submerged fill, a venturi scrubber (2502-LF), and a condenser (2105-C)	OAC rule 3745-31-05(A)(3) (PTI 07-232)	Volatile organic compound emissions shall not exceed 0.40 ton per year. See section A.I.2.a below.
	40 CFR Part 63, Subparts F, G, and H	See section A.III.1 below.
	40 CFR Part 60, Subpart Kb	See section A.I.2.b below.

2. **Additional Terms and Conditions**

2.a The closed vent system for storage tanks T029, T030, and T063 shall be designed to collect all VOC vapors and gases discharged from the storage vessels operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in 40 CFR Part 60, Subpart VV.

In accordance with 40 CFR Part 60, Subpart VV, the permittee shall maintain a leak detection and repair (LDAR) program for equipment in volatile organic compound service within this emissions unit.

The leak detection and repair program pertains to any type of pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, flange, connector, closed vent system, and any other device or system in volatile organic compound service within this emissions unit.

For equipment which is subject to the provisions of 40 CFR Part 60, Subpart VV and is also subject to section A.3 of Part II - Specific Facility Terms and Conditions, the permittee is required only to comply with section A.3 of Part II - Specific Facility Terms and Conditions. The provisions in 40 CFR 63.1(a)(3) of Subpart A do not alter the provisions in this section.

For equipment in VOC service which is subject to 40 CFR Part 60, Subpart VV but is not subject to section A.3 of Part II - Specific Facility Terms and Conditions, the permittee has elected to apply section A.3 of Part II - Specific Facility Terms and Conditions to all such equipment in the process unit, in accordance with section A.3.d of Part II - Specific Facility Terms and Conditions. All VOC in such equipment shall be considered, for purposes of applicability and compliance with section A.3 of Part II - Specific Facility Terms and Conditions as if it were organic HAP. Compliance with the provisions of section A.3 of Part II - Specific Facility Terms and Conditions, in the manner described in this section, shall be deemed to constitute compliance with 40 CFR Part 60, Subpart VV.

2.b This group 2 storage vessel is subject to the provisions of 40 CFR Part 60, Subpart Kb but is required to comply only with sections A.1, A.2, and A.3 of of Part II - Specific Facility Terms and Conditions.

2.c In accordance with section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak and detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall comply with the record keeping requirements for group 2 storage vessels of section A.2.i. of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

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 # 07-232, issued on 2/27/91: 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 semi-annual reports for the LDAR program in accordance with the requirements of section A.3.zc.iv of Part II - Facility Specific Terms and Conditions.

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 #07-232, issued on 2/27/91: 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 limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1a. Emission Limitation -

   Volatile organic compound emissions shall not exceed 0.40 ton per year.

   Applicable Compliance Method:

   Compliance shall be demonstrated using maximum throughput and the calculations and emission factors contained in AP-42, Volume I, 5th Edition, Chapter 1, Section 7.1, dated January, 1995.

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 #07-232, issued on 2/27/91: 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: 2101-FC (T033)
Activity Description: Cumene 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
2,086,000-gallon cumene storage tank (2101-FC) with a fixed roof and submerged fill	OAC rule 3745-31-05(A)(3) (PTI 07-451)	Volatile organic compound emissions shall not exceed 7.96 tons per year.
	40 CFR Part 63, Subparts F, G, and H	See section A.III.1 below.

2. Additional Terms and Conditions

2.a In accordance with section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak and detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall comply with the record keeping requirements for group 2 storage vessels of section A.2.i. of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent or as more stringent than the monitoring and record keeping requirements contained in Permit to Install #07-451, issued on 02/08/98: A.III.1 and A.III.2. The monitoring and record keeping 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 semi-annual reports for the LDAR program for equipment in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent or as more stringent than the reporting requirements contained in Permit to Install #07-451, issued on 02/08/98: 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 limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 7.96 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated using maximum throughput and the calculations and emission factors contained in AP-42, Volume I, 5th Edition, Chapter 1, Section 7.1, dated September , 1997.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent or as more stringent than the testing requirements contained in Permit to Install #07-451, issued on 02/08/98: A.V.1. The testing 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: 2102-FC (T034)
Activity Description: Phenol 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
977,600-gallon phenol storage tank (2102-FC) with a fixed roof and submerged fill	OAC rule 3745-31-05(A)(3) (PTI 07-451)	Volatile organic compounds shall not exceed 5.06 tons per year.
	40 CFR Part 63, Subparts F, G, and H	See section A.III.1 below.

2. Additional Terms and Conditions

2.a In accordance with section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak and detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall comply with the record keeping requirements for group 2 storage vessels of section A.2.i. of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent or as more stringent than the monitoring and record keeping requirements contained in Permit to Install #07-451, issued on 02/08/98: A.III.1 and A.III.2. The monitoring and record keeping 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 semi-annual reports for the LDAR program for equipment in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent or as more stringent than the reporting requirements contained in Permit to Install #07-451, issued on 02/08/98: 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 limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1a. Emission Limitation -

Volatile organic compounds shall not exceed 5.06 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated using maximum throughput and the calculations and emission factors contained in AP-42, Volume I, 5th Edition, Chapter 1, Section 7.1, dated September , 1997.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent or as more stringent than the testing requirements contained in Permit to Install #07-451, issued on 02/08/98: A.V.1 . The testing 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: 2003-FA (T039)
Activity Description: Cumene Storage Tank (formerly tank number TK-1701)

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
1,015,112 gallon fixed roof cumene or crude AMS storage tank (2003-FA) with submerged fill	OAC rule 3745-31-05 (A)(3) (PTI 07-00451)	Volatile organic compound emissions shall not exceed 4.94 tons per year.
	40 CFR Part 63, Subparts A, F, and G as applicable	See section A.III.1 below.

2. Additional Terms and Conditions

2.a In accordance with section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak and detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall comply with the record keeping requirements for group 2 storage vessels of section A.2.i. of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent or as more stringent than the monitoring and record keeping requirements contained in Permit to Install #07-451, issued on 02/08/98: A.III.1 and A.III.2. The monitoring and record keeping 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 semi-annual reports for the LDAR program for equipment in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent or as more stringent than the reporting requirements contained in Permit to Install #07-451, issued on 02/08/98: 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 limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 4.94 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated using maximum throughput and the calculations and emission factors contained in AP-42, Volume I, 5th Edition, Chapter 1, Section 7.1, dated September , 1997.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent or as more stringent than the testing requirements contained in Permit to Install #07-451, issued on 02/08/98: A.V.1. The testing 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: F-91A (T045)
Activity Description: Aniline 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
846,850 gallon aniline storage tank (F91-A) with fixed roof and submerged fill	OAC rule 3745-31-05(A)(3) (PTI 07-00449)	Volatile organic compound emissions shall not exceed 1.65 tons per year
	40 CFR Part 63, Subparts F, G, and H	See sections A.2.a and A.III.1 below.

2. Additional Terms and Conditions

2.a In accordance with section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak and detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall comply with the record keeping requirements for group 2 storage vessels of section A.2.i. of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent or as more stringent than the monitoring and record keeping requirements contained in Permit to Install #07-449, issued on 09/10/97 and modified on 12/12/01: A.III.1 and A.III.2. The monitoring and record keeping 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 semi-annual reports for the LDAR program for equipment in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent or as more stringent than the reporting requirements contained in Permit to Install #07-449, issued on 09/10/97 and modified on 12/12/01: 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 limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1a. Emission Limitation -

   Volatile organic compound emissions shall not exceed 1.65 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated using maximum throughput and the calculations and emission factors contained in AP-42, Volume I, 5th Edition, Chapter 1, Section 7.1, dated September , 1997.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent or as more stringent than the testing requirements contained in Permit to Install #07-449, issued on 09/10/97 and modified on 12./12/01: AV.1 . The testing 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: F-91B (T046)
Activity Description: Aniline 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
846,850 gallon aniline storage tank (F91-B) with fixed roof and submerged fill	OAC rule 3745-31-05(A)(3) (PTI 07-00449)	Volatile organic compound emissions shall not exceed 1.65 tons per year.
	40 CFR Part 63, Subparts F, G, and H	See sections A.2.a and A.III.1 below.

2. Additional Terms and Conditions

2.a In accordance with section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak and detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall comply with the record keeping requirements for group 2 storage vessels of section A.2.i. of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent or as more stringent than the monitoring and record keeping requirements contained in Permit to Install #07-449, issued on 09/10/97 and modified on 12/12/01: A.III.1 and A.III.2. The monitoring and record keeping 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 semi-annual reports for the LDAR program for equipment in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent or as more stringent than the reporting requirements contained in Permit to Install #07-449, issued on 09/10/97 and modified on 12/12/01: 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 limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1a. Emission Limitation -

   Volatile organic compound emissions shall not exceed 1.65 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated using maximum throughput and the calculations and emission factors contained in AP-42, Volume I, 5th Edition, Chapter 1, Section 7.1, dated September , 1997.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent or as more stringent than the testing requirements contained in Permit to Install #07-449, issued on 09/10/97 and modified on 12/12/01: A.V.1. The testing 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: 3510-F (T059)
Activity Description: Alpha Methyl Styrene Hydrogenation Feed 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
11,844 gallon hydrogenation feed tank with vent condenser and submerged fill	OAC rule 3745-31-05(A)(3) (PTI 07-00451)	Volatile organic compound emissions shall not exceed 1.11 tons per year.
	40 CFR Part 63, Subparts F, G and H as applicable	See sections A.2.a and A.III.1 below.
	40 CFR Part 60, Subpart Kb	See section A.III.1 below.

2. Additional Terms and Conditions

2.a In accordance with section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak and detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall comply with the record keeping requirements for group 2 storage vessels of section A.2.i. of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent or as more stringent than the monitoring and record keeping requirements contained in Permit to Install #07-451, issued on 02/08/98: A.III.1 and A.III.2. The monitoring and record keeping 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 semi-annual reports for the LDAR program for equipment in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent or as more stringent than the reporting requirements contained in Permit to Install #07-451, issued on 02/08/98: 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 limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 1.11 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated using maximum throughput and the calculations and emission factors contained in AP-42, Volume I, 5th Edition, Chapter 1, Section 7.1, dated September , 1997.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent or as more stringent than the testing requirements contained in Permit to Install #07-451, issued on 02/08/98: A.V.1. The testing 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: 2108-F (T063)
Activity Description: Heavy Hydrocarbons 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
112,800-gallon heavy hydrocarbon storage tank (2108-F) with a fixed roof, submerged fill, a venturi scrubber (2502-LF), and a condenser (2105-C)	OAC rule 3745-31-05(A)(3) (PTI 07-435)	Volatile organic compound emissions shall not exceed 1.8 pounds per day and 0.33 ton per year.
	40 CFR Part 63, Subparts F, G, and H	See section A.III.1 below.
	40 CFR Part 60, Subpart Kb	See section A.I.2.a below.

2. Additional Terms and Conditions

2.a The closed vent system for storage tanks T029, T030, and T063 shall be designed to collect all VOC vapors and gases discharged from the storage vessels operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in 40 CFR Part 60, Subpart VV.

In accordance with 40 CFR Part 60, Subpart VV, the permittee shall maintain a leak detection and repair (LDAR) program for equipment in volatile organic compound service within this emissions unit.

The leak detection and repair program pertains to any type of pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, flange, connector, closed vent system, and any other device or system in volatile organic compound service within this emissions unit.

2.b This group 2 storage vessel is subject to the provisions of 40 CFR Part 60, Subpart Kb but is required to comply only with sections A.1, A.2, and A.3 of Part II - Specific Facility Terms and Conditions.

2.c In accordance with section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak and detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall comply with the record keeping requirements for group 2 storage vessels of section A.2.i. of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

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 # 07-435, issued on 1/15/97: 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 permittee shall submit semi-annual reports for the LDAR program in accordance with the requirements of section A.3.zc.iv of Part II - Facility Specific Terms and Conditions.

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 #07-435, issued on 1/15/97: 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 limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 1.8 pounds per day and 0.33 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated using maximum throughput and the calculations and emission factors contained in AP-42, Volume I, 5th Edition, Chapter 1, Section 7.1, dated September , 1997.

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 #07-435, issued on 1/15/97: 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: 326-F (T064)
Activity Description: Hydrogenation AMS 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
41,130 gallon hydrogenation AMS storage tank (326-F) with fixed roof and submerged fill	OAC rule 3745-31-05(A)(3) (PTI 07-00451)	Volatile organic compound emissions shall not exceed 6.55 tons per year.
	40 CFR Part 63, Subparts F, and G and H as applicable	See section A.III.1 below.

2. Additional Terms and Conditions

2.a In accordance with section A.3 of the Part II - Specific Facility Terms and Conditions, the permittee shall maintain a leak and detection and repair (LDAR) program for equipment in organic hazardous air pollutant (HAP) service within this emissions unit.

The leak detection and repair program pertains to any type of 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 HAP service within this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. The permittee shall comply with the record keeping requirements for group 2 storage vessels of section A.2.i. of Part II - Specific Facility Terms and Conditions.

2. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in section A.3.za of Part II - Specific Facility Terms and Conditions.

   The permittee shall maintain records for the LDAR program in accordance with the requirements of section A.3.zb of Part II - Specific Facility Terms and Conditions.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent or as more stringent than the monitoring and record keeping requirements contained in Permit to Install #07-451, issued on 02/08/98: A.III.1 and A.III.2. The monitoring and record keeping 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 semi-annual reports for the LDAR program for equipment in accordance with the requirements of section A.3.zc.iv of Part II - Specific Facility Terms and Conditions.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent or as more stringent than the reporting requirements contained in Permit to Install #07-451, issued on 02/08/98: 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 limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1a. Emission Limitation -

Volatile organic compound emissions shall not exceed 6.55 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated using maximum throughput and the calculations and emission factors contained in AP-42, Volume I, 5th Edition, Chapter 1, Section 7.1, dated September , 1997.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent or as more stringent than the testing requirements contained in Permit to Install #07-451, issued on 02/08/98: A.V.1 . The testing 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