



State of Ohio Environmental Protection Agency

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Columbus, OH 43216-1049

06/30/03

CERTIFIED MAIL

RE: Draft Title V Chapter 3745-77 permit

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

Dear Troy Dehoff:

You are hereby notified that the Ohio Environmental Protection Agency has prepared the enclosed draft of the Title V permit for the facility referenced above. The purpose of this draft is to solicit public comments. A public notice concerning the draft will appear in the Ohio EPA Weekly Review and the major newspaper in the county where the facility is located. Comments and/or a request for a public hearing from the public and any affected parties will be accepted by Portsmouth Air Pollution Group within 30 days of the date of publication in the newspaper. You will be notified in writing if a public hearing is scheduled.

A decision on processing the Title V permit will be made after consideration of written public comments and oral testimony (if a public hearing is conducted). After the comment period, you will be provided with a Preliminary Proposed Title V permit and an opportunity to comment prior to the Proposed Title V permit submittal to USEPA.

If you have any questions or comments concerning this draft Title V permit, please contact Portsmouth Air Pollution Group.

Very truly yours,

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

cc: USEPA (electronically submitted)
File, DAPC PMU
Portsmouth Air Pollution Group
Kentucky
West Virginia



State of Ohio Environmental Protection Agency

DRAFT TITLE V PERMIT

Issue Date: 06/30/03

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

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

Table with 3 columns: Emissions Unit ID (Company ID), Emissions Unit Activity Description, and Emissions Unit Activity Description. Rows include units like B010, B015, B020, F001, L001, L002, P002, P003, P009, P010, P014, P015, P017, P018, P019, P020, P021, P022, P023, T003, T004, and T005.

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.

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, 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. 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))

ii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) with respect to emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

- (a) Written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations ; (ii) the probable cause of such deviations; and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Part III of this Title V permit, the written 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. 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. These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii)

pertaining to the prompt reporting of all deviations. See B.6 below if no deviations occurred during the quarter.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i), (ii) and (iii))

- (b) 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 deviation reporting requirements for this Title V permit, written reports that identify each malfunction that occurred during each calendar quarter shall be submitted, at a minimum, quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters.

In identifying each deviation caused by a malfunction, the permittee shall specify the applicable requirement 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. Also, if a deviation caused by a malfunction is identified in a written report submitted pursuant to paragraph (a) above, a separate report is not required for that malfunction pursuant to this paragraph. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing, at a minimum, on a quarterly basis.

Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation, operational restriction, and control device operating parameter limitation shall be reported in the same manner as described above for malfunctions. These written reports for malfunctions (and scheduled maintenance projects, if appropriate) shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(iii))

iii. **For monitoring, record keeping, and reporting requirements:**

Written reports that identify any deviations from the federally enforceable monitoring, record keeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year, for the previous six calendar months. 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. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, record keeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no 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))

2. 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 unit(s) 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 OAC rule 3745-15-06, 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).

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iii))

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:

1. 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
2. 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, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.
- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that

Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For purposes of clarification, the permittee can refer to Engineering Guide #63 that is available in the STARSHIP software package.)

(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))

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 Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforcable Section

1. The permittee may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD. 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.
2. 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:
 - a. for a new affected source, the anticipated date of startup of operation;
 - b. 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;
 - c. any existing federal, State, or local limitations or requirements applicable to the affected source;
 - d. for each affected emission point or group of affected emission points, an identification of control technology in place;
 - e. information relevant to establishing the MACT floor (or MACT emission limitation), and, at the option of the permittee, a recommended MACT floor; and
 - f. 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.

The Part II application for a MACT determination may, but is not required to, contain the following information:

- a. 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);
- b. 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
- c. relevant parameters to be monitored and frequency of monitoring to demonstrate continuous compliance with the MACT emission limitation over the applicable reporting period.

A. State and Federally Enforcable Section (continued)

3. If the NESHAP is promulgated before the Part II application is due for the relevant source 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:
- a. 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):
 - i. the name and mailing address of the permittee;
 - ii. the physical location of the source if it is different from the mailing address;
 - iii. identification of the relevant MACT standard and the source's compliance date;
 - iv. 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
 - v. a statement confirming the facility is a major source for HAPs.
 - b. 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:
 - i. the methods used to determine compliance;
 - ii. the results of any performance tests, visible emission observations, continuous monitoring systems performance evaluations, and/or other monitoring procedures or methods that were conducted;
 - iii. the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;
 - iv. 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;
 - v. an analysis demonstrating whether the affected source is a major source or an area source;
 - vi. 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
 - vii. a statement of whether or not the permittee has complied with the requirements of the relevant Subpart.
4. "This subpart," as used in this section (A.2 through A.51), refers to the relevant subpart of 40 CFR Part 63, Subpart JJJ.

A. State and Federally Enforcable Section (continued)

5. The group of Thermoplastic Product Process Units (TPPU) and associated equipment at this facility is an existing affected source as defined in 40 CFR 63.1310.

TPPU means a collection of equipment assembled and connected by hard-piping or ductwork, used to process raw materials and to manufacture a thermoplastic product as its primary product. This collection of equipment includes unit operations; recovery operations equipment, process vents; equipment identified in 63.149; storage vessels, as determined in 63.1310(g); and the equipment that is subject to the equipment leak provisions as specified in 63.1331. Utilities, lines and equipment not containing process fluids, and other non-process lines, such as heating and cooling systems which do not combine their materials with those in the processes they serve, are not part of the thermoplastic product process unit. A TPPU consists of more than one unit operation.

The affected source also includes the following emission points and equipment that are associated with each applicable group of one or more TPPU constituting an affected source.

- (i) Each waste management unit;
- (ii) Maintenance wastewater;
- (iii) Each heat exchange system; and
- (iv) Equipment required by, or utilized as a method of compliance with, this subpart which may include control devices and recovery devices.

6. [40 CFR 63.1313(a)]

If applicable, the permittee shall comply with the provisions in:

- (1) Section 63.1314 for storage vessels;
- (2) Section 63.1315, or 63.1316 through 63.1320, as appropriate, for continuous process vents;
- (3) Section 63.1321 for batch process vents;
- (4) Section 63.1328 for heat exchange systems;
- (5) Section 63.1329 for process contact cooling towers;
- (6) Section 63.1330 for wastewater;
- (7) Section 63.1331 for equipment leaks;
- (8) Section 63.1333 for additional test methods and procedures;
- (9) Section 63.1334 for parameter monitoring levels and excursions; and
- (10) Section 63.1335 for general record keeping and reporting requirements.

A. State and Federally Enforcable Section (continued)

**7. [40 CFR 63.1314(a)]
Storage Vessel Provisions**

This section applies to each storage vessel that is assigned to an affected source, as determined by 63.1310(g). Except as provided in paragraphs (b) through (d) of 63.1314, the owner or operator of an affected source shall comply with the requirements of 63.119 through 63.123 and 63.148 for those storage vessels, with the differences noted in paragraphs (a)(1) through (a)(17) of 63.1314 for the purposes of this subpart.

(1) When the term "storage vessel" is used in 63.119 through 63.123, the definition of this term in 63.1312 shall apply for the purposes of this subpart.

(2) When the term "Group 1 storage vessel" is used in 63.119 through 63.123, the definition of this term in 63.1312 shall apply for the purposes of this subpart.

(3) When the term "Group 2 storage vessel" is used in 63.119 through 63.123, the definition of this term in 63.1312 shall apply for the purposes of this subpart.

(4) When the emissions averaging provisions of 63.150 are referred to in 63.119 and 63.123, the emissions averaging provisions contained in 63.1332 shall apply for the purposes of this subpart.

(5) When December 31, 1992, is referred to in 63.119, March 29, 1995 shall apply instead, for the purposes of this subpart.

(6) When April 22, 1994, is referred to in 63.119, June 19, 2000 shall apply instead, for the purposes of this subpart.

(7) Each owner or operator of an affected source shall comply with this paragraph (a)(7) instead of 63.120(d)(1)(ii) for the purposes of this subpart. If the control device used to comply with 63.119(e) is also used to comply with any of the requirements found in 63.1315, 63.1316, 63.1322, or 63.1330, the performance test required in or accepted by the applicable requirements of 63.1315, 63.1316, 63.1322, and 63.1330 is acceptable for demonstrating compliance with 63.119(e) for the purposes of this subpart. The owner or operator is not required to prepare a design evaluation for the control device as described in 63.120(d)(1)(i), if the performance test meets the criteria specified in paragraphs (a)(7)(i) and (a)(7)(ii) of 63.1314.

(i) The performance test demonstrates that the control device achieves greater than or equal to the required control efficiency specified in 63.119(e)(1) or 63.119(e)(2), as applicable; and

(ii) The performance test is submitted as part of the Notification of Compliance Status required by 63.1335(e)(5).

(8) When the term "range" is used in 63.120(d)(3), 63.120(d)(5), and 63.122(g)(2), the term "level" shall apply instead, for the purposes of this subpart.

A. State and Federally Enforcable Section (continued)

(9) For purposes of this subpart, the monitoring plan required by 63.120(d)(2) shall specify for which control devices the owner or operator has selected to follow the procedures for continuous monitoring specified in 63.1334. For those control devices for which the owner or operator has selected to not follow the procedures for continuous monitoring specified in 63.1334, the monitoring plan shall include a description of the parameter or parameters to be monitored to ensure that the control device is being properly operated and maintained, an explanation of the criteria used for selection of that parameter (or parameters), and the frequency with which monitoring will be performed (e.g., when the liquid level in the storage vessel is being raised), as specified in 63.120(d)(2)(i).

(10) For purposes of this subpart, the monitoring plan required by 63.122(b) shall be included in the Notification of Compliance Status required by 63.1335(e)(5).

(11) When the Notification of Compliance Status requirements contained in 63.152(b) are referred to in 63.120, 63.122, and 63.123, the Notification of Compliance Status requirements contained in 63.1335(e)(5) shall apply for the purposes of this subpart.

(12) When the Periodic Report requirements contained in 63.152(c) are referred to in 63.120 and 63.122, the Periodic Report requirements contained in 63.1335(e)(6) shall apply for the purposes of this subpart.

(13) When other reports as required in 63.152(d) are referred to in 63.122, the reporting requirements contained in 63.1335(e)(7) shall apply for the purposes of this subpart.

(14) When the Initial Notification requirements contained in 63.151(b) are referred to in 63.122, the owner or operator of an affected source subject to this subpart need not comply for the purposes of this subpart.

(15) When the determination of equivalence criteria in 63.102(b) is referred to in 63.121(a), the provisions in 63.6(g) shall apply for the purposes of this subpart.

(16) When 63.119(a) requires compliance according to the schedule provisions in 63.100, owners and operators of affected sources shall instead comply with the requirements in 63.119(a)(1) through 63.119(a)(4) by the compliance date for storage vessels, which is specified in 63.1311.

(17) In 63.120(e)(1), instead of the reference to 63.11(b), the requirements of 63.1333(e) shall apply.

8. [40 CFR 63.1314(b)]

Owners or operators of Group 1 storage vessels that are assigned to a new affected source producing styrene acrylonitrile (SAN) using a continuous process shall control emissions to the levels indicated in paragraphs (b)(1) and (b)(2) of 63.1314.

(1) For storage vessels with capacities greater than or equal to 2,271 cubic meters (m³) containing a liquid mixture having a vapor pressure greater than or equal to 0.5 kilopascal (kPa) but less than 0.7 kPa, emissions shall be controlled by at least 90 percent relative to uncontrolled emissions.

(2) For storage vessels with capacities less than 151 m³ containing a liquid mixture having a vapor pressure greater than or equal to 10 kPa, emissions shall be controlled by at least 98 percent relative to uncontrolled emissions.

(3) For all other storage vessels designated as Group 1 storage vessels, emissions shall be controlled to the level designated in 63.119.

9. [40 CFR 63.1314(c)]

Owners or operators of Group 1 storage vessels that are assigned to a new or existing affected source producing acrylonitrile styrene acrylate (ASA) / alpha methyl styrene acrylonitrile (AMSAN) shall control emissions by at least 98 percent relative to uncontrolled emissions.

A. State and Federally Enforcable Section (continued)

10. [40 CFR 63.1314(d)]

The provisions of this subpart do not apply to storage vessels containing ethylene glycol at existing or new affected sources and storage vessels containing styrene at existing affected sources.

11. [40 CFR 63.1315(a)]

Continuous Process Vents Provisions

For each continuous process vent located at an affected source, the owner or operator shall comply with the requirements of 63.113 through 63.118, with the differences noted in paragraphs (a)(1) through (a)(18) of 63.1315 for the purposes of this subpart, except as provided in paragraphs (b) through (e) of 63.1315.

(1) When the term "process vent" is used in 63.113 through 63.118, the term "continuous process vent," and the definition of this term in 63.1312 shall apply for the purposes of this subpart.

(2) When the term "Group 1 process vent" is used in 63.113 through 63.118, the term "Group 1 continuous process vent," and the definition of this term in 63.1312 shall apply for the purposes of this subpart.

(3) When the term "Group 2 process vent" is used in 63.113 through 63.118, the term "Group 2 continuous process vent," and the definition of this term in 63.1312 shall apply for the purposes of this subpart.

(4) When December 31, 1992 is referred to in 63.113, apply the date March 29, 1995, for the purposes of this subpart.

(5) When 63.151(f), alternative monitoring parameters, and 63.152(e), submission of an operating permit, are referred to in 63.114(c) and 63.117(e), 63.1335(f), alternative monitoring parameters, and 63.1335(e)(8), submission of an operating permit, respectively, shall apply for the purposes of this subpart.

(6) When the Notification of Compliance Status requirements contained in 63.152(b) are referred to in 63.114, 63.117, and 63.118, the Notification of Compliance Status requirements contained in 63.1335(e)(5) shall apply for the purposes of this subpart.

(7) When the Periodic Report requirements contained in 63.152(c) are referred to in 63.117 and 63.118, the Periodic Report requirements contained in 63.1335(e)(6) shall apply for the purposes of this subpart.

(8) When the definition of excursion in 63.152(c)(2)(ii)(A) is referred to in 63.118(f)(2), the definition of excursion in 63.1334(f) of this subpart shall apply for the purposes of this subpart.

(9) When 63.114(e) or 63.117(f) specifies that an owner or operator shall submit the information required in 63.152(b) in order to establish the parameter monitoring range, the owner or operator of an affected source shall comply with the provisions of 63.1335(e)(5) for purposes of reporting information related to establishment of the parameter monitoring level for purposes of this subpart. Further, the term "level" shall apply when the term "range" is used in 63.114, 63.117, and 63.118.

(10) When reports of process changes are required under 63.118(g), (h), (i), or (j), paragraphs (a)(10)(i) through (a)(10)(iv) of 63.1315 shall apply for the purposes of this subpart. In addition, for the purposes of this subpart, paragraph (a)(10)(v) of 63.1315 applies, and 63.118(k) does not apply to owners or operators of affected sources.

A. State and Federally Enforcable Section (continued)

(i) For the purposes of this subpart, whenever a process change, as defined in 63.115(e), is made that causes a Group 2 continuous process vent to become a Group 1 continuous process vent, the owner or operator shall submit a report within 180 days after the process change is made or with the next Periodic Report, whichever is later. A description of the process change shall be submitted with the report of the process change, and the owner or operator of the affected source shall comply with the Group 1 provisions in 63.113 through 63.118 in accordance with 63.1310(i)(2)(ii) or (i)(2)(iii), as applicable.

(ii) Whenever a process change, as defined in 63.115(e), is made that causes a Group 2 continuous process vent with a total resource effectiveness (TRE) greater than 4.0 to become a Group 2 continuous process vent with a TRE less than 4.0, the owner or operator shall submit a report within 180 days after the process change is made or with the next Periodic Report, whichever is later. A description of the process change shall be submitted with the report of the process change, and the owner or operator shall comply with the provisions in 63.113(d) by the dates specified in 63.1311.

(iii) Whenever a process change, as defined in 63.115(e), is made that causes a Group 2 continuous process vent with a flow rate less than 0.005 standard cubic meter per minute to become a Group 2 continuous process vent with a flow rate of 0.005 standard cubic meter per minute or greater and a TRE index value less than or equal to 4.0, the owner or operator shall submit a report within 180 days after the process change is made or with the next Periodic Report, whichever is later. A description of the process change shall be submitted with the report of the process change, and the owner or operator shall comply with the provisions in 63.113(d) by the dates specified in 63.1311.

(iv) Whenever a process change, as defined in 63.115(e), is made that causes a Group 2 continuous process vent with an organic HAP concentration less than 50 ppmv to become a Group 2 continuous process vent with an organic HAP concentration of 50 parts per million by volume or greater and a TRE index value less than or equal to 4.0, the owner or operator shall submit a report within 180 days after the process change is made or with the next Periodic Report, whichever is later. A description of the process change shall be submitted with the report of the process change, and the owner or operator shall comply with the provisions in 63.113(d) by the dates specified in 63.1311.

(v) The owner or operator is not required to submit a report of a process change if one of the conditions listed in paragraphs (a)(10)(v)(A), (a)(10)(v)(B), (a)(10)(v)(C), or (a)(10)(v)(D) of 63.1315 is met.

(A) The process change does not meet the definition of a process change in 63.115(e);

(B) The vent stream flow rate is recalculated according to 63.115(e) and the recalculated value is less than 0.005 standard cubic meter per minute;

(C) The organic HAP concentration of the vent stream is recalculated according to 63.115(e) and the recalculated value is less than 50 ppmv; or

(D) The TRE index value is recalculated according to 63.115(e) and the recalculated value is greater than 4.0, or for the affected sources producing methyl methacrylate butadiene styrene resin the recalculated value is greater than 6.7.

A. State and Federally Enforcable Section (continued)

(11) When the provisions of 63.116(c)(3) and (c)(4) specify that Method 18, 40 CFR part 60, appendix A shall be used, Method 18 or Method 25A, 40 CFR part 60, appendix A may be used for the purposes of this subpart. The use of Method 25A, 40 CFR part 60, appendix A shall conform with the requirements in paragraphs (a)(11)(i) and (a)(11)(ii) of 63.1315.

(i) The organic HAP used as the calibration gas for Method 25A, 40 CFR part 60, appendix A shall be the single organic HAP representing the largest percent by volume of the emissions.

(ii) The use of Method 25A, 40 CFR part 60, appendix A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(12) When 63.118, periodic reporting and record keeping requirements, refers to 63.152(f), the record keeping requirements in 63.1335(d) shall apply for purposes of this subpart.

(13) If a batch process vent or aggregate batch vent stream is combined with a continuous process vent, the owner or operator of the affected source containing the combined vent stream shall comply with paragraph (a)(13)(i); with paragraph (a)(13)(ii) and with paragraph (a)(13)(iii) or (iv); or with paragraph (a)(13)(v) of 63.1315, as appropriate.

(i) If a batch process vent or aggregate batch vent stream is combined with a Group 1 continuous process vent prior to the combined vent stream being routed to a control device, the owner or operator of the affected source containing the combined vent stream shall comply with the requirements in paragraph (a)(13)(i)(A) or (B) of 63.1315.

(A) All requirements for a Group 1 process vent stream in 63.113 through 63.118, except as otherwise provided in this section. As specified in 63.1333(a)(1), performance tests shall be conducted at maximum representative operating conditions. For the purpose of conducting a performance test on a combined vent stream, maximum representative operating conditions shall be when batch emission episodes are occurring that result in the highest organic HAP emission rate (for the combined vent stream) that is achievable during one of the periods listed in 63.1333(a)(1)(i) or 63.1333(a)(1)(ii), without causing any of the situations described in paragraphs (a)(13)(i)(A)(1) through (3) to occur.

(1) Causing damage to equipment.

(2) Necessitating that the owner or operator make product that does not meet an existing specification for sale to a customer; or

(3) Necessitating that the owner or operator make product in excess of demand.

(B) Comply with the provisions in 63.1313(b)(1), as allowed under 63.1313(b).

(ii) If a batch process vent or aggregate batch vent stream is combined with a continuous process vent prior to the combined vent stream being routed to a recovery device, the TRE index value for the combined vent stream shall be calculated at the exit of the last recovery device. The TRE shall be calculated during periods when one or more batch emission episodes are occurring that result in the highest organic HAP emission rate (in the combined vent stream that is being routed to the recovery device) that is achievable during the 6-month period that begins 3 months before and ends 3 months after the TRE calculation, without causing any of the situations described in paragraphs (a)(13)(ii)(A) through (C) to occur.

A. State and Federally Enforcable Section (continued)

(A) Causing damage to equipment.

(B) Necessitating that the owner or operator make product that does not meet an existing specification for sale to a customer; or

(C) Necessitating that the owner or operator make product in excess of demand.

(iii) If the combined vent stream described in paragraph (a)(10)(ii) of 63.1315 meets the requirements in paragraphs (a)(13)(iii)(A), (B), and (C) of 63.1315, the combined vent stream shall be subject to the requirements for Group 1 process vents in 63.113 through 63.118, except as otherwise provided in 63.1315, as applicable. Performance tests for the combined vent stream shall be conducted at maximum operating conditions, as described in paragraph (a)(13)(i) of 63.1315.

(A) The TRE index value of the combined stream is less than or equal to 1.0;

(B) The flow rate of the combined vent stream is greater than or equal to 0.005 standard cubic meter per minute; and

(C) The total organic HAP concentration is greater than or equal to 50 ppmv for the combined vent stream.

(iv) If the combined vent stream described in paragraph (a)(10)(ii) of 63.1315 meets the requirements in paragraph (a)(13)(iv)(A), (B), or (C) of 63.1315, the combined vent stream shall be subject to the requirements for Group 2 process vents in 63.113 through 63.118, except as otherwise provided in 63.1315, as applicable.

(A) The TRE index value of the combined vent stream is greater than 1.0;

(B) The flow rate of the combined vent stream is less than 0.005 standard cubic meter per minute; or

(C) The total organic HAP concentration is less than 50 ppmv for the combined vent stream.

(v) If a batch process vent or aggregate batch vent stream is combined with a Group 2 continuous process vent, the owner or operator shall comply with the requirements in either paragraph (a)(13)(v)(A) or (a)(13)(v)(B) of 63.1315.

(A) The owner or operator shall comply with the requirements in 63.113 through 63.118 for Group 1 process vents; or

(B) The owner or operator shall comply with 63.1322(e)(2) for batch process vents and aggregate batch vent streams.

(14) If any gas stream that originates outside of an affected source that is subject to this subpart is normally conducted through the same final recovery device as any continuous process vent stream subject to this subpart, the owner or operator of the affected source with the combined vent stream shall comply with all requirements in 63.113 through 63.118 of subpart G of this part, except as otherwise noted in 63.1315, as applicable.

(i) Instead of measuring the vent stream flow rate at the sampling site specified in 63.115(b)(1), the sampling site for vent stream flow rate shall be prior to the final recovery device and prior to the point at which the gas stream that is not controlled under this subpart is introduced into the combined vent stream.

(ii) Instead of measuring total organic HAP or TOC concentrations at the sampling site specified in 63.115(c)(1), the sampling site for total organic HAP or TOC concentration shall be prior to the final recovery device and prior to the point at which the gas stream that is not controlled under this subpart is introduced into the combined vent stream.

A. State and Federally Enforcable Section (continued)

(iii) The efficiency of the final recovery device (determined according to paragraph (a)(14)(iv) of 63.1315) shall be applied to the total organic HAP or TOC concentration measured at the sampling site described in paragraph (a)(14)(ii) of 63.1315 to determine the exit concentration. This exit concentration of total organic HAP or TOC shall then be used to perform the calculations outlined in 63.115(d)(2)(iii) and 63.115(d)(2)(iv), for the combined vent stream exiting the final recovery device.

(iv) The efficiency of the final recovery device is determined by measuring the total organic HAP or TOC concentration using Method 18 or 25A, 40 CFR part 60, appendix A, at the inlet to the final recovery device after the introduction of any gas stream that is not controlled under this subpart, and at the outlet of the final recovery device.

(15) When 63.115(c)(3)(ii)(B) and (d)(2)(iv) and 63.116(c)(3)(ii)(B) and (c)(4)(ii)(C) refer to Table 2 of subpart F of this part, the owner or operator is only required to consider organic HAP listed on Table 6 of this subpart for purposes of this subpart.

(16) The compliance date for continuous process vents subject to the provisions of 63.1315 is specified in 63.1311.

(17) In 63.116(a), instead of the reference to 63.11(b), the requirements in 63.1333(e) shall apply.

(18) When a combustion device is used to comply with the 20 ppmv outlet concentration standard specified in 63.113(a)(2), the correction to 3 percent oxygen is only required when supplemental combustion air is used to combust the emissions, for the purposes of this subpart. In addition, the correction to 3 percent oxygen specified in 63.116(c)(3) and (c)(3)(iii) is only required when supplemental combustion air is used to combust the emissions, for the purposes of this subpart. Finally, when a combustion device is used to comply with the 20 ppmv outlet concentration standard specified in 63.113(a)(2), an owner or operator shall record and report the outlet concentration required in 63.117(a)(4)(ii) and (a)(4)(iv) corrected to 3 percent oxygen when supplemental combustion air is used to combust the emissions, for the purposes of this subpart. When supplemental combustion air is not used to combust the emissions, an owner or operator may record and report the outlet concentration required in 63.117(a)(4)(ii) and (a)(4)(iv) on an uncorrected basis or corrected to 3 percent oxygen, for the purposes of this subpart.

12. [40 CFR 63.1315(b)]

Owners or operators of existing affected sources producing methyl methacrylate butadiene styrene (MBS) shall comply with either paragraph (b)(1) or (b)(2) of 63.1315.

(1) Comply with paragraph (a) of 63.1315, as specified in paragraphs (b)(1)(i) and (b)(1)(ii).

(i) As specified in 63.1312, Group 1 continuous process vents at MBS existing affected sources are those with a total resource effectiveness value less than or equal to 3.7.

(ii) When complying with this paragraph (b) and the term "TRE of 4.0" is used, or related terms indicating a TRE index value of 4.0, referred to in 63.113 through 63.118, are used, the term "TRE of 6.7," shall apply instead, for the purposes of this subpart. The TRE range of 3.7 to 6.7 for continuous process vents at existing affected sources producing MBS corresponds to the TRE range of 1.0 to 4.0 for other continuous process vents, as it applies to monitoring, record keeping, and reporting.

(2) Not allow organic HAP emissions from the collection of continuous process vents at the affected source to be greater than 0.000590 kg organic HAP/Mg of product. Compliance with this paragraph (b)(2) shall be determined using the procedures specified in 63.1333(b).

13. [40 CFR 63.1315(c)]

Owners or operators of new affected sources producing SAN using a batch process shall comply with the applicable requirements in 63.1321.

A. State and Federally Enforcable Section (continued)

14. [40 CFR 63.1315(d)]

Affected sources producing poly ethylene terephthalate (PET) or polystyrene using a continuous process are subject to the emissions control provisions of 63.1316, the monitoring provisions of 63.1317, the testing and compliance demonstration provisions of 63.1318, the recordkeeping provisions of 63.1319, and the reporting provisions of 63.1320. However, in some instances as specified in 63.1316, select continuous process vents present at affected sources producing PET or polystyrene using a continuous process are subject to the provisions of 63.1315.

15. [40 CFR 63.1315(e)]

Owners or operators of affected sources producing ASA/AMSAN shall reduce organic HAP emissions from each continuous process vent, each batch process vent, and each aggregate batch vent stream by 98 weight-percent and shall comply with either paragraph (e)(1), (e)(2), or (e)(3), as appropriate. Where batch process vents or aggregate batch vent streams are combined with continuous process vents, the provisions of paragraph (a)(13) of 63.1315 shall apply for the purposes of this paragraph (e).

(1) For each continuous process vent, comply with paragraph (a) of 63.1315 as specified in paragraphs (e)(1)(i) through (e)(1)(ii) of 63.1315.

(i) For purpose of 63.1315, each continuous process vent shall be considered to be a Group 1 continuous process vent and the owner or operator of that continuous process vent shall comply with the requirements for a Group 1 continuous process vent.

(ii) For purposes of 63.1315, the group determination procedure required by 63.115 shall not apply.

(2) For each batch process vent, comply with 63.1321 through 63.1327 as specified in paragraphs (e)(2)(i) through (e)(2)(ii) of 63.1315.

(i) For purpose of 63.1315, each batch process vent shall be considered to be a Group 1 batch process vent and the owner or operator of that batch process vent shall comply with the requirements for a Group 1 batch process vent contained in 63.1321 through 63.1327, except that each batch process vent shall be controlled to reduce organic HAP emissions by 98 weight-percent.

(ii) For purposes of 63.1315, the group determination procedure required by 63.1323 shall not apply.

(3) For each aggregate batch vent stream, comply with 63.1321 through 63.1327 as specified in paragraphs (e)(3)(i) through (e)(3)(ii) of 63.1315.

(i) For purpose of 63.1315, each aggregate batch vent stream shall be considered to be a Group 1 aggregate batch vent stream and the owner or operator of that aggregate batch vent stream shall comply with the requirements for a Group 1 aggregate batch vent stream contained in 63.1321 through 63.1327, except that each aggregate batch vent stream shall be controlled to reduce organic HAP emissions by 98 weight-percent.

(ii) For purposes of 63.1315, the group determination procedure required by 63.1323 shall not apply.

16. [40 CFR 63.1317]

PET and Polystyrene Affected Sources - Monitoring Provisions

Continuous process vents using a control or recovery device to comply with 63.1316 shall comply with the applicable monitoring provisions specified for continuous process vents in 63.1315(a), except that references to group determinations (i.e., total resource effectiveness) do not apply and owners or operators are not required to comply with 63.113.

A. State and Federally Enforcable Section (continued)

- 17.** [40 CFR 63.1318(a)]
PET and Polystyrene continuous process affected sources - testing and compliance demonstration provisions

Owners or operators using a control or recovery device to comply with 63.1316 shall comply with the applicable testing and compliance provisions specified in 63.1315(a), except that, for the purposes of this paragraph (a), references to group determinations (i.e., total resource effectiveness) do not apply, and owners or operators are not required to comply with 63.113.

- 18.** [40 CFR 63.1319(a)]
PET and Polystyrene Affected Sources - Recordkeeping Provisions

Owners or operators using a control or recovery device to comply with 63.1316 shall comply with the applicable record keeping provisions specified in 63.1315(a), except that, for the purposes of this paragraph (a), references to group determinations (i.e., total resource effectiveness) do not apply, and owners or operators are not required to comply with 63.113.

- 19.** [40 CFR 63.1320(a)]
PET and Polystyrene Affected Sources - Reporting Provisions

Owners or operators using a control or recovery device to comply with 63.1316 shall comply with the applicable reporting provisions specified in 63.1315(a), except that, for the purposes of this paragraph (a), references to group determinations (i.e., total resource effectiveness) do not apply, and owners or operators are not required to comply with 63.113.

- 20.** [40 CFR 63.1328]
Heat Exchange Systems Provisions

(a) Except as specified in paragraph (b) of 63.1328, each owner or operator of an affected source shall comply with 63.104, with the differences noted in paragraphs (c) through (h) of 63.1328, for the purposes of this subpart.

(b) The provisions of paragraph (a) of 63.1328 do not apply to each process contact cooling tower that is associated with an existing affected source manufacturing PET.

(c) When the term "chemical manufacturing process unit" is used in 63.104, the term "thermoplastic product process unit (TPPU)" shall apply for purposes of this subpart, with the exception noted in paragraph (d) of 63.1328.

(d) When the phrase "a chemical manufacturing process unit meeting the conditions of 63.100(b)(1) through (b)(3) of this subpart, except for chemical manufacturing process units meeting the condition specified in 63.100(c) of this subpart" is used in 63.104(a), the term "a TPPU, except for TPPUs meeting the condition specified in 63.1310(b)" shall apply for purposes of this subpart.

(e) When 63.104 refers to Table 4 of subpart F of this part or Table 9 of subpart G of this part, the owner or operator is only required to consider organic HAP listed on Table 6 of this subpart, except for ethylene glycol which need not be considered under 63.1328, for purposes of this subpart.

(f) When 63.104(c)(3) specifies the monitoring plan retention requirements, and when 63.104(f)(1) refers to the record retention requirements in 63.103(c)(1), the requirements in 63.1335(a) and 63.1335(h) shall apply, for purposes of this subpart.

(g) When 63.104(f)(2) requires information to be reported in the Periodic Reports required by 63.152(c), the owner or operator shall instead report the information specified in 63.104(f)(2) in the Periodic Reports required by 63.1335(e)(6), for the purposes of this subpart.

(h) The compliance date for heat exchange systems subject to the provisions of 63.1328 is specified in 63.1311.

A. State and Federally Enforcable Section (continued)

**21. [40 CFR 63.1331(a)]
Equipment Leak Provisions**

The owner or operator of each affected source shall comply with the requirements of subpart H of this part, with the differences noted in paragraphs (a)(1) through (a)(13) of 63.1331.

(1) For an affected source producing polystyrene resin, the indications of liquids dripping, as defined in subpart H of this part, from bleed ports in pumps and agitator seals in light liquid service shall not be considered to be a leak. For purposes of this subpart, a "bleed port" is a technologically-required feature of the pump or seal whereby polymer fluid used to provide lubrication and/or cooling of the pump or agitator shaft exits the pump, thereby resulting in a visible dripping of fluid.

(2) The compliance date for the equipment leak provisions contained in 63.1331 is provided in 63.1311. Whenever subpart H of this part refers to the compliance dates specified in any paragraph contained in 63.100, the compliance dates listed in 63.1311(d) shall instead apply, for the purposes of this subpart. When 63.182(c)(4) refers to "sources subject to subpart F," the phrase "sources subject to this subpart" shall apply, for the purposes of this subpart. In addition, extensions of compliance dates are addressed by 63.1311(e) instead of 63.182(a)(6), for the purposes of this subpart.

(3) Owners and operators of an affected source subject to this subpart are not required to submit the Initial Notification required by 63.182(a)(1) and 63.182(b).

(4) As specified in 63.1335(e)(5), the Notification of Compliance Status required by paragraphs 63.182(a)(2) and 63.182(c) shall be submitted within 150 days (rather than 90 days) of the applicable compliance date specified in 63.1311 for the equipment leak provisions.

(5) The information specified by 63.182(a)(3) and 63.182(d) (i.e., Periodic Reports) shall be submitted as part of the Periodic Reports required by 63.1335(e)(6).

(6) For pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in light liquid or heavy liquid service; and instrumentation systems; owners or operators of affected sources producing PET shall comply with the requirements of paragraphs (a)(6)(i) and (ii) of this section instead of with the requirements of 63.139. Owners or operators of PET affected sources shall comply with all other provisions of Subpart H of this part for pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in light liquid or heavy liquid service; and instrumentation systems, except as specified in paragraphs (a)(6)(iii) through (v) of 63.1331.

(i) A leak is determined to be detected if there is evidence of a potential leak found by visual, audible, or olfactory means. Method 21, 40 CFR part 60, appendix A may not be used to determine the presence or absence of a leak.

(ii)(A) When a leak is detected, it shall be repaired as soon as practical, but not later than 15 days after it is detected, except as provided in 63.171.

(B) The first attempt at repair shall be made no later than 5 days after each leak is detected.

(iii) An owner or operator is not required to develop an initial list of identification numbers as would otherwise be required under 63.181(b)(1)(i) or 63.181(b)(4).

(iv) When recording the detection of a leak under 63.182(d)(1), the owner or operator of an affected source shall comply with paragraphs (a)(6)(iv)(A) through (a)(6)(iv)(B) of 63.1331.

A. State and Federally Enforcable Section (continued)

(A) When complying with 63.181(d)(1), provide an identification number for the leaking equipment at the time of recordkeeping. Further, the owner or operator is not required to record the identification number of the instrument (i.e., Method 21 instrument) because the use of Method 21 is not an acceptable method for determining a leak under this paragraph (a)(6).

(B) An owner or operator is not required to comply with 63.181(d)(4) which requires a record of the maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A.

(v) Indications of liquids dripping, as defined in subpart H of this part, from packing glands for pumps in ethylene glycol service where the pump seal is designed to weep fluid shall not be considered to be a leak. Ethylene glycol dripping from pump seals must be captured in a catchpan and returned to the process.

(7) When 63.166(b)(4)(i) refers to Table 9 of subpart G of this part, the owner or operator is only required to consider organic HAP listed on Table 6 of this subpart for purposes of this subpart, except for ethylene glycol which need not be considered.

(8) When the provisions of subpart H of this part specify that Method 18, 40 CFR part 60, appendix A, shall be used, Method 18 or Method 25A, 40 CFR part 60, appendix A, may be used for the purposes of this subpart. The use of Method 25A, 40 CFR part 60, appendix A, shall conform with the requirements in paragraphs (a)(8)(i) and (a)(8)(ii) of 63.1331.

(i) The organic HAP used as the calibration gas for Method 25A, 40 CFR part 60, appendix A, shall be the single organic HAP representing the largest percent by volume of the emissions.

(ii) The use of Method 25A, 40 CFR part 60, appendix A, is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(9) Paragraph (a)(9) of 63.1331 is reserved.

(10) If specific items of equipment, comprising part of a process unit subject to this subpart, are managed by different administrative organizations (e.g., different companies, affiliates, departments, divisions, etc.), those items of equipment may be aggregated with any TPPU within the affected source for all purposes under subpart H of this part, providing there is no delay in achieving the applicable compliance date.

(11) When the terms "equipment" and "equipment leak" are used in subpart H of this part, the definitions of these terms in 63.1312 shall apply for the purposes of this subpart.

(12) The phrase "the provisions of subparts F, I, or JJJ of this part" shall apply instead of the phrase "the provisions of subpart F or I of this part" throughout 63.163 and 63.168, for the purposes of this subpart. In addition, the phrase "subparts F, I, and JJJ" shall apply instead of the phrase "subparts F and I" in 63.174(c)(2)(iii), for the purposes of this subpart.

(13) An owner or operator using a flare to comply with the requirements of 63.1331 shall conduct a compliance demonstration as specified in 63.1333(e).

A. State and Federally Enforcable Section (continued)

22. [40 CFR 63.1333(a)]

Additional Requirements for Performance Testing

Performance testing shall be conducted in accordance with 63.7(a)(1), (a)(3), (d), (e)(1), (e)(2), (e)(4), (g), and (h), with the exceptions specified in paragraphs (a)(1) through (a)(5) of 63.1333 and the additions specified in paragraphs (b) through (d) of 63.1333. Sections 63.1314 through 63.1330 also contain specific testing requirements.

(1) Performance tests shall be conducted according to the provisions of 63.7(e)(1) and (e)(2), except that performance tests shall be conducted at maximum representative operating conditions achievable during one of the time periods described in paragraph (a)(1)(i) of 63.1333, without causing any of the situations described in paragraph (a)(1)(ii) of 63.1333 to occur.

(i) The 6-month period that ends 2 months before the Notification of Compliance Status is due, according to 63.1335(e)(5); or the 6-month period that begins 3 months before the performance test and ends 3 months after the performance test.

(ii) Causing damage to equipment; necessitating that the owner or operator make product that does not meet an existing specification for sale to a customer; or necessitating that the owner or operator make product in excess of demand.

(2) The requirements in 63.1335(e)(5) shall apply instead of the references in 63.7(g) to the Notification of Compliance Status requirements in 63.9(h).

(3) Because the site-specific test plans in 63.7(c)(3) are not required, 63.7(h)(4)(ii) is not applicable.

(4) The owner or operator shall notify the Administrator of the intention to conduct a performance test at least 30 days before the performance test is scheduled to allow the Administrator the opportunity to have an observer present during the test. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator by mutual agreement.

(5) Performance tests shall be performed no later than 150 days after the compliance dates specified in this subpart (i.e., in time for the results to be included in the Notification of Compliance Status), rather than according to the time periods in 63.7(a)(2) of subpart A of this part.

23. [40 CFR 63.1333(b)]

Each owner or operator of an existing affected source producing MBS complying with 63.1315(b)(2) shall determine compliance with the mass emission per mass product standard by using Equation 49 of this subpart. When determining E_i , when the provisions of 63.116(c)(4) specify that Method 18, 40 CFR part 60, appendix A, shall be used, Method 18 or Method 25A, 40 CFR part 60, appendix A, may be used for the purposes of this subpart. The use of Method 25A, 40 CFR part 60, appendix A, shall conform with the requirements in paragraphs (b)(1) and (b)(2) of 63.1333.

24. [40 CFR 63.1333(c)]

The owner or operator of an affected source, complying with 63.1322(a)(3) shall determine compliance with the percent reduction requirement using Equation 50 of this subpart.

25. [40 CFR 63.1333(d)]

Data shall be reduced in accordance with the EPA approved methods specified in the applicable subpart or, if other test methods are used, the data and methods shall be validated according to the protocol in Method 301 of appendix A of this part.

A. State and Federally Enforcable Section (continued)

26. [40 CFR 63.1334(a)]
Parameter Monitoring Levels and Excursions

Establishment of parameter monitoring levels. The owner or operator of a control or recovery device that has one or more parameter monitoring level requirements specified under this subpart shall establish a maximum or minimum level for each measured parameter. If a performance test is required by this subpart for a control device, the owner or operator shall use the procedures in either paragraph (b) or (c) of 63.1334 to establish the parameter monitoring level(s). If a performance test is not required by this subpart for a control device, the owner or operator may use the procedures in paragraph (b), (c) or (d) of 63.1334 to establish the parameter monitoring level(s). When using the procedures specified in paragraph (c) or (d) of 63.1334, the owner or operator shall submit the information specified in 63.1335(e)(3)(vii) for review and approval as part of the Precompliance Report.

(1) The owner or operator shall operate control and recovery devices such that the daily average of monitored parameters remains above the minimum established level or below the maximum established level, except as otherwise stated in this subpart.

(2) As specified in 63.1335(e)(5), all established levels, along with their supporting documentation and the definition of an operating day, shall be submitted as part of the Notification of Compliance Status.

(3) Nothing in 63.1334 shall be construed to allow a monitoring parameter excursion caused by an activity that violates other applicable provisions of subpart A, F, G, or H of this part.

27. [40 CFR 63.1334(b)]
Establishment of parameter monitoring levels based exclusively on performance tests. In cases where a performance test is required by this subpart, or the owner or operator of the affected source elects to do a performance test in accordance with the provisions of this subpart, and an owner or operator elects to establish a parameter monitoring level for a control, recovery, or recapture device based exclusively on parameter values measured during the performance test, the owner or operator of the affected source shall comply with the procedures in paragraphs (b)(1) through (b)(4) of 63.1334, as applicable.

(1) Paragraph (b)(1) of 63.1334 is reserved.

(2) Continuous process vents. During initial compliance testing, the appropriate parameter shall be continuously monitored during the required 1-hour runs. The monitoring level(s) shall then be established as the average of the maximum (or minimum) point values from the three test runs. The average of the maximum values shall be used when establishing a maximum level, and the average of the minimum values shall be used when establishing a minimum level.

A. State and Federally Enforcable Section (continued)

(3) Batch process vents. The monitoring level(s) shall be established using the procedures specified in either paragraph (b)(3)(i) or (b)(3)(ii) of 63.1334. The procedures specified in this paragraph (b)(3) may only be used if the batch emission episodes, or portions thereof, selected to be controlled were tested, and monitoring data were collected, during the entire period in which emissions were vented to the control device, as specified in 63.1325(c)(1)(i). If the owner or operator chose to test only a portion of the batch emission episode, or portion thereof, selected to be controlled, the procedures in paragraph (c) of 63.1334 shall be used.

(i) If more than one batch emission episode or more than one portion of a batch emission episode has been selected to be controlled, a single level for the batch cycle shall be calculated as follows:

(A) The average monitored parameter value shall be calculated for each batch emission episode, or portion thereof, in the batch cycle selected to be controlled. The average shall be based on all values measured during the required performance test.

(B) If the level to be established is a maximum operating parameter, the level shall be defined as the minimum of the average parameter values of the batch emission episodes, or portions thereof, in the batch cycle selected to be controlled (i.e., identify the emission episode, or portion thereof, which requires the lowest parameter value in order to assure compliance. The average parameter value that is necessary to assure compliance for that emission episode, or portion thereof, shall be the level for all emission episodes, or portions thereof, in the batch cycle, that are selected to be controlled).

(C) If the level to be established is a minimum operating parameter, the level shall be defined as the maximum of the average parameter values of the batch emission episodes, or portions thereof, in the batch cycle selected to be controlled (i.e., identify the emission episode, or portion thereof, which requires the highest parameter value in order to assure compliance. The average parameter value that is necessary to assure compliance for that emission episode, or portion thereof, shall be the level for all emission episodes, or portions thereof, in the batch cycle, that are selected to be controlled).

(D) Alternatively, an average monitored parameter value shall be calculated for the entire batch cycle based on all values measured during each batch emission episode, or portion thereof, selected to be controlled.

(ii) Instead of establishing a single level for the batch cycle, as described in paragraph (b)(3)(i) of 63.1334, an owner or operator may establish separate levels for each batch emission episode, or portion thereof, selected to be controlled. Each level shall be determined as specified in paragraph (b)(3)(i)(A) of 63.1334.

(iii) The batch cycle shall be defined in the Notification of Compliance Status, as specified in 63.1335(e)(5). Said definition shall include an identification of each batch emission episode and the information required to determine parameter monitoring compliance for partial batch cycles (i.e., when part of a batch cycle is accomplished during two different operating days).

(4) Aggregate batch vent streams. For aggregate batch vent streams, the monitoring level shall be established in accordance with paragraph (b)(2) of 63.1334.

28. [40 CFR 63.1334(c)]

Establishment of parameter monitoring levels based on performance tests, supplemented by engineering assessments and/or manufacturer's recommendations. In cases where a performance test is required by this subpart, or the owner or operator elects to do a performance test in accordance with the provisions of this subpart, and an owner or operator elects to establish a parameter monitoring level for a control, recovery, or recapture device under this paragraph (c), the owner or operator shall supplement the parameter values measured during the performance test with engineering assessments and/or manufacturer's recommendations. Performance testing is not required to be conducted over the entire range of expected parameter values.

A. State and Federally Enforcable Section (continued)

- 29.** [40 CFR 63.1334(d)]
Establishment of parameter monitoring based on engineering assessments and/or manufacturer's recommendations. In cases where a performance test is not required by this subpart and an owner or operator elects to establish a parameter monitoring level for a control, recovery, or recapture device under this paragraph (d), the determination of the parameter monitoring level shall be based exclusively on engineering assessments and/or manufacturer's recommendations.
- 30.** [40 CFR 63.1334(e)]
Paragraph (e) of 63.1334 is reserved.
- 31.** [40 CFR 63.1334(f)]
Parameter monitoring excursion definitions. (1) With respect to storage vessels (where the applicable monitoring plan specifies continuous monitoring), continuous process vents, aggregate batch vent streams, and process wastewater streams, an excursion means any of the three cases listed in paragraphs (f)(1)(i) through (f)(1)(iii) of 63.1334. For a control or recovery device where multiple parameters are monitored, if one or more of the parameters meets the excursion criteria in paragraphs (f)(1)(i) through (f)(1)(iii) of 63.1334, this is considered a single excursion for the control or recovery device. For each excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart, except as provided in paragraph (g) of 63.1334.
- (i) When the daily average value of one or more monitored parameters is above the maximum level or below the minimum level established for the given parameters.
- (ii) When the period of control or recovery device operation, with the exception noted in paragraph (f)(1)(v) of 63.1334, is 4 hours or greater in an operating day, and monitoring data are insufficient, as defined in paragraph (f)(1)(iv) of 63.1334, to constitute a valid hour of data for at least 75 percent of the operating hours.
- (iii) When the period of control or recovery device operation, with the exception noted in paragraph (f)(1)(v) of 63.1334, is less than 4 hours in an operating day and more than two of the hours during the period of operation do not constitute a valid hour of data due to insufficient monitoring data, as defined in paragraph (f)(1)(iv) of 63.1334.
- (iv) Monitoring data are insufficient to constitute a valid hour of data, as used in paragraphs (f)(1)(ii) and (f)(1)(iii) of 63.1334, if measured values are unavailable for any of the 15-minute periods within the hour. For data compression systems approved under 63.1335(g)(3), monitoring data are insufficient to calculate a valid hour of data if there are less than four data measurements made during the hour.
- (v) The periods listed in paragraphs (f)(1)(v)(A) through (f)(1)(v)(E) of 63.1334 are not considered to be part of the period of control or recovery device operation, for the purposes of paragraphs (f)(1)(ii) and (f)(1)(iii) of 63.1334.
- (A) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;
- (B) Start-ups;
- (C) Shutdowns;
- (D) Malfunctions; or
- (E) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

A. State and Federally Enforcable Section (continued)

32. [40 CFR 63.1334(g)]

Excused excursions. A number of excused excursions shall be allowed for each control or recovery device for each semiannual period. The number of excused excursions for each semiannual period is specified in paragraphs (g)(1) through (g)(6) of 63.1334. This paragraph (g) applies to affected sources required to submit Periodic Reports semiannually or quarterly. The first semiannual period is the 6-month period starting the date the Notification of Compliance Status is due.

- (1) For the first semiannual period -- six excused excursions.
- (2) For the second semiannual period -- five excused excursions.
- (3) For the third semiannual period -- four excused excursions.
- (4) For the fourth semiannual period -- three excused excursions.
- (5) For the fifth semiannual period -- two excused excursions.
- (6) For the sixth and all subsequent semiannual periods -- one excused excursion.

33. [40 CFR 63.1335(a)]

General Record keeping and Reporting Provisions

Data retention. Unless otherwise specified in this subpart, the owner or operator of an affected source shall keep copies of all applicable records and reports required by this subpart for at least 5 years, as specified in paragraph (a)(1) of 63.1335, with the exception listed in paragraph (a)(2) of 63.1335.

- (1) All applicable records shall be maintained in such a manner that they can be readily accessed. The most recent 6 months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request. The remaining 4 and one-half years of records may be retained offsite. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.
- (2) If an owner or operator submits copies of reports to the appropriate EPA Regional Office, the owner or operator is not required to maintain copies of reports. If the EPA Regional Office has waived the requirement of 63.10(a)(4)(ii) for submittal of copies of reports, the owner or operator is not required to maintain copies of those reports.

A. State and Federally Enforcable Section (continued)

34. [40 CFR 63.1335(b)]

Requirements of subpart A of this part. The owner or operator of an affected source shall comply with the applicable record keeping and reporting requirements in subpart A of this part as specified in Table 1 of this subpart. These requirements include, but are not limited to, the requirements specified in paragraphs (b)(1) and (b)(2) of 63.1335.

(1) Start-up, shutdown, and malfunction plan. The owner or operator of an affected source shall develop and implement a written start-up, shutdown, and malfunction plan as specified in 63.6(e)(3). This plan shall describe, in detail, procedures for operating and maintaining the affected source during periods of start-up, shutdown, and malfunction and a program for corrective action for malfunctioning process and air pollution control equipment used to comply with this subpart. Inclusion of Group 2 emission points is not required, unless these points are included in an emissions average. For equipment leaks (subject to 63.1331), the start-up, shutdown, and malfunction plan requirement is limited to control devices and is optional for other equipment. For equipment leaks, the start-up, shutdown, and malfunction plan may include written procedures that identify conditions that justify a delay of repair. A provision for ceasing to collect, during a start-up, shutdown, or malfunction, monitoring data that would otherwise be required by the provisions of this subpart may be included in the start-up, shutdown, and malfunction plan only if the owner or operator has demonstrated to the Administrator, through the Precompliance Report or a supplement to the Precompliance Report, that the monitoring system would be damaged or destroyed if it were not shut down during the start-up, shutdown, or malfunction. The affected source shall keep the start-up, shutdown, and malfunction plan on-site.

Records associated with the plan shall be kept as specified in paragraphs (b)(1)(i)(A) through (b)(1)(i)(C) of 63.1335. Reports related to the plan shall be submitted as specified in paragraph (b)(1)(ii) of 63.1335.

(i) Records of start-up, shutdown, and malfunction. The owner or operator shall keep the records specified in paragraphs (b)(1)(i)(A) through (b)(1)(i)(C) of 63.1335.

(A) Records of the occurrence and duration of each start-up, shutdown, and malfunction of operation of process equipment or control devices or recovery devices or continuous monitoring systems used to comply with this subpart during which excess emissions (as defined in 63.1310(j)(4)) occur.

(B) For each start-up, shutdown, or malfunction during which excess emissions (as defined in 63.1310(j)(4)) occur, records reflecting whether the procedures specified in the affected source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. For example, if a start-up, shutdown, and malfunction plan includes procedures for routing a control device to a backup control device, records shall be kept of whether the plan was followed. These records may take the form of a "checklist," or other form of recordkeeping that confirms conformance with the start-up shutdown, and malfunction plan for the event.

(C) Records specified in paragraphs (b)(1)(i)(A) through (b)(1)(i)(B) of 63.1335 are not required if they pertain solely to Group 2 emission points that are not included in an emissions average.

(2) Application for approval of construction or reconstruction. For new affected sources, each owner or operator shall comply with the provisions in 63.5 regarding construction and reconstruction, excluding the provisions specified in 63.5(d)(1)(ii)(H), (d)(1)(iii), (d)(2), and (d)(3)(ii).

35. [40 CFR 63.1335(b)(1)(ii)]

General Record keeping and Reporting Provisions

Reports of start-up, shutdown, and malfunction. For the purposes of this subpart, the semiannual start-up, shutdown, and malfunction reports shall be submitted on the same schedule as the Periodic Reports required under paragraph (e)(6) of 63.1335 instead of being submitted on the schedule specified in 63.10(d)(5)(i). The reports shall include the information specified in 63.10(d)(5)(i).

36. [40 CFR 63.1335(c)]

Paragraph (c) of 63.1335 is reserved.

A. State and Federally Enforcable Section (continued)

37. [40 CFR 63.1335(d)]

Record keeping and documentation. Owners or operators required to keep continuous records shall keep records as specified in paragraphs (d)(1) through (d)(7) of 63.1335, unless an alternative recordkeeping system has been requested and approved as specified in paragraph (g) of 63.1335, and except as provided in paragraph (h) of 63.1335. If a monitoring plan for storage vessels pursuant to 63.1314(a)(9) requires continuous records, the monitoring plan shall specify which provisions, if any, of paragraphs (d)(1) through (d)(7) of 63.1335 apply. As described in 63.1314(a)(9), certain storage vessels are not required to keep continuous records as specified in this paragraph. Owners and operators of such storage vessels shall keep records as specified in the monitoring plan required by 63.1314(a)(9). Paragraphs (d)(8) and (d)(9) of 63.1335 specify documentation requirements.

(1) The monitoring system shall measure data values at least once every 15 minutes.

(2) The owner or operator shall record either each measured data value or block average values for 1 hour or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values. Owners or operators of batch process vents shall record each measured data value.

(3) Daily average (or batch cycle daily average) values of each continuously monitored parameter shall be calculated for each operating day as specified in paragraphs (d)(3)(i) through (d)(3)(ii) of 63.1335, except as specified in paragraphs (d)(6) and (d)(7) of 63.1335.

(i) The daily average value or batch cycle daily average shall be calculated as the average of all parameter values recorded during the operating day, except as specified in paragraph (d)(7) of 63.1335. For batch process vents, as specified in 63.1326(e)(2)(i), only parameter values measured during those batch emission episodes, or portions thereof, in the batch cycle that the owner or operator has chosen to control shall be used to calculate the average. The calculated average shall cover a 24-hour period if operation is continuous, or the number of hours of operation per operating day if operation is not continuous.

(ii) The operating day shall be the period the owner or operator specifies in the operating permit or the Notification of Compliance Status for purposes of determining daily average values or batch cycle daily average values of monitored parameters.

(4) Paragraph (d)(4) of 63.1335 is reserved.

(5) Paragraph (d)(5) of 63.1335 is reserved.

A. State and Federally Enforcable Section (continued)

(6) Records required when all recorded values are within the established limits. If all recorded values for a monitored parameter during an operating day are above the minimum level or below the maximum level established in the Notification of Compliance Status or operating permit, the owner or operator may record that all values were above the minimum level or below the maximum level rather than calculating and recording a daily average (or batch cycle daily average) for that operating day.

(7) Monitoring data recorded during periods identified in paragraphs (d)(7)(i) through (d)(7)(v) of 63.1335 shall not be included in any average computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device or recovery device operation when monitors are not operating.

(i) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;

(ii) Start-ups;

(iii) Shutdowns;

(iv) Malfunctions;

(v) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

(8) For continuous monitoring systems used to comply with this subpart, records documenting the completion of calibration checks, and records documenting the maintenance of continuous monitoring systems that are specified in the manufacturer's instructions or that are specified in other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

(9) The owner or operator of an affected source granted a waiver under 63.10(f) shall maintain the information, if any, specified by the Administrator as a condition of the waiver of record keeping or reporting requirements.

**38. [40 CFR 63.1335(e)]
Reporting and Notification**

In addition to the reports and notifications required by subpart A of this part as specified in Table 1 of this subpart, the owner or operator of an affected source shall prepare and submit the reports listed in paragraphs (e)(3) through (e)(8) of 63.1335, as applicable. All reports required by this subpart, and the schedule for their submittal, are listed in Table 9 of this subpart.

39. [40 CFR 63.1335(e)(1)]

Owners and operators shall not be in violation of the reporting requirements of this subpart for failing to submit information required to be included in a specified report if the owner or operator meets the requirements in paragraphs (e)(1)(i) through (e)(1)(iii) of 63.1335. Examples of circumstances where this paragraph may apply include information related to newly-added equipment or emission points, changes in the process, changes in equipment required or utilized for compliance with the requirements of this subpart, or changes in methods or equipment for monitoring, recordkeeping, or reporting.

(i) The information was not known in time for inclusion in the report specified by this subpart;

(ii) The owner or operator has been diligent in obtaining the information; and

(iii) The owner or operator submits a report according to the provisions of paragraphs (e)(1)(iii)(A) through (e)(1)(iii)(C) of 63.1335.

(A) If this subpart expressly provides for supplements to the report in which the information is required, the owner or operator shall submit the information as a supplement to that report. The information shall be submitted no later than 60 days after it is obtained, unless otherwise specified in this subpart.

A. State and Federally Enforcable Section (continued)

(B) If this subpart does not expressly provide for supplements, but the owner or operator must submit a request for revision of an operating permit pursuant to part 70 or part 71, due to circumstances to which the information pertains, the owner or operator shall submit the information with the request for revision to the operating permit.

(C) In any case not addressed by paragraph (e)(1)(iii)(A) or (e)(1)(iii)(B) of this paragraph, the owner or operator shall submit the information with the first Periodic Report, as required by this subpart, which has a submission deadline at least 60 days after the information is obtained.

40. [40 CFR 63.1335(e)(2)]

All reports required under this subpart shall be sent to the Administrator at the appropriate address listed in 63.13. If acceptable to both the Administrator and the owner or operator of an affected source, reports may be submitted on electronic media.

41. [40 CFR 63.1335(e)(3)]

Precompliance Report. Owners or operators of affected sources requesting an extension for compliance; requesting approval to use alternative monitoring parameters, alternative continuous monitoring and record keeping, or alternative controls; requesting approval to use engineering assessment to estimate emissions from a batch emissions episode, as described in 63.1323(b)(6)(i)(C); wishing to establish parameter monitoring levels according to the procedures contained in 63.1334(c) or (d); or requesting approval to incorporate a provision for ceasing to collect monitoring data, during a start-up, shutdown, or malfunction, into the start-up, shutdown, and malfunction plan, when that monitoring equipment would be damaged if it did not cease to collect monitoring data, as permitted under 63.1310(j)(3), shall submit a Precompliance Report according to the schedule described in paragraph (e)(3)(i) of 63.1335. The Precompliance Report shall contain the information specified in paragraphs (e)(3)(ii) through (e)(3)(viii) of 63.1335, as appropriate.

(i) Submittal dates. The Precompliance Report shall be submitted to the Administrator no later than December 19, 2000. If a Precompliance Report was submitted prior to June 19, 2000 and no changes need to be made to that Precompliance Report, the owner or operator shall re-submit the earlier report or submit notification that the previously submitted report is still valid. Unless the Administrator objects to a request submitted in the Precompliance Report within 45 days after its receipt, the request shall be deemed approved. For new affected sources, the Precompliance Report shall be submitted to the Administrator with the application for approval of construction or reconstruction required in paragraph (b)(2) of 63.1335. Supplements to the Precompliance Report may be submitted as specified in paragraph (e)(3)(ix) of 63.1335.

(ii) A request for an extension for compliance, as specified in 63.1311(e), may be submitted in the Precompliance Report. The request for a compliance extension shall include the data outlined in 63.6(i)(6)(i)(A), (B), and (D), as required in 63.1311(e)(1).

(iii) The alternative monitoring parameter information required in paragraph (f) of 63.1335 shall be submitted in the Precompliance Report if, for any emission point, the owner or operator of an affected source seeks to comply through the use of a control technique other than those for which monitoring parameters are specified in this subpart or in subpart G of this part or seeks to comply by monitoring a different parameter than those specified in this subpart or in subpart G of this part.

(iv) If the affected source seeks to comply using alternative continuous monitoring and recordkeeping as specified in paragraph (g) of 63.1335, the owner or operator shall submit a request for approval in the Precompliance Report.

(v) The owner or operator shall report the intent to use alternative controls to comply with the provisions of this subpart in the Precompliance Report. The Administrator may deem alternative controls to be equivalent to the controls required by the standard, under the procedures outlined in 63.6(g).

(vi) If a request for approval to use engineering assessment to estimate emissions from a batch emissions episode, as described in 63.1323(b)(6)(i)(C) is being made, the information required by 63.1323(b)(6)(iii)(B) shall be submitted in the Precompliance Report.

A. State and Federally Enforcable Section (continued)

(ii) A request for an extension for compliance, as specified in 63.1311(e), may be submitted in the Precompliance Report. The request for a compliance extension shall include the data outlined in 63.6(i)(6)(i)(A), (B), and (D), as required in 63.1311(e)(1).

(iii) The alternative monitoring parameter information required in paragraph (f) of 63.1335 shall be submitted in the Precompliance Report if, for any emission point, the owner or operator of an affected source seeks to comply through the use of a control technique other than those for which monitoring parameters are specified in this subpart or in subpart G of this part or seeks to comply by monitoring a different parameter than those specified in this subpart or in subpart G of this part.

(iv) If the affected source seeks to comply using alternative continuous monitoring and recordkeeping as specified in paragraph (g) of 63.1335, the owner or operator shall submit a request for approval in the Precompliance Report.

(v) The owner or operator shall report the intent to use alternative controls to comply with the provisions of this subpart in the Precompliance Report. The Administrator may deem alternative controls to be equivalent to the controls required by the standard, under the procedures outlined in 63.6(g).

(vi) If a request for approval to use engineering assessment to estimate emissions from a batch emissions episode, as described in 63.1323(b)(6)(i)(C) is being made, the information required by 63.1323(b)(6)(iii)(B) shall be submitted in the Precompliance Report.

(A) Supplements to the Precompliance Report may be submitted to clarify or modify information previously submitted.

(B) Supplements to the Precompliance Report may be submitted to request approval to use alternative monitoring parameters, as specified in paragraph (e)(3)(iii) of 63.1335; to use alternative continuous monitoring and recordkeeping, as specified in paragraph (e)(3)(iv) of 63.1335; to use alternative controls, as specified in paragraph (e)(3)(v) of 63.1335; to use engineering assessment to estimate emissions from a batch emissions episode, as specified in paragraph (e)(3)(vi) of 63.1335; to establish parameter monitoring levels according to the procedures contained in 63.1334(c) or (d), as specified in paragraph (e)(3)(vii) of 63.1335; or to include a provision for ceasing to collect monitoring data during a start-up, shutdown, or malfunction, in the start-up, shutdown, and malfunction plan, when that monitoring equipment would be damaged if it did not cease to collect monitoring data, as specified in paragraph (e)(3)(viii) of 63.1335.

42. [40 CFR 63.1335(e)(4)]

Emissions Averaging Plan. For all existing affected sources using emissions averaging, an Emissions Averaging Plan shall be submitted for approval according to the schedule and procedures described in paragraph (e)(4)(i) of 63.1335. The Emissions Averaging Plan shall contain the information specified in paragraph (e)(4)(ii) of 63.1335, unless the information required in paragraph (e)(4)(ii) of 63.1335 is submitted with an operating permit application. An owner or operator of an affected source who submits an operating permit application instead of an Emissions Averaging Plan shall submit the information specified in paragraph (e)(8) of 63.1335. In addition, a supplement to the Emissions Averaging Plan, as required under paragraph (e)(4)(iii) of 63.1335, is to be submitted whenever additional alternative controls or operating scenarios may be used to comply with this subpart. Updates to the Emissions Averaging Plan shall be submitted in accordance with paragraph (e)(4)(iv) of 63.1335.

(i) Submittal and approval. The Emissions Averaging Plan shall be submitted no later than September 19, 2000, and it is subject to Administrator approval. If an Emissions Averaging Plan was submitted prior to June 19, 2000 and no changes need to be made to that Emissions Averaging Plan, the owner or operator shall re-submit the earlier plan or submit notification that the previously submitted plan is still valid. The Administrator shall determine within 120 days whether the Emissions Averaging Plan submitted presents sufficient information. The Administrator shall either approve the Emissions Averaging Plan, request changes, or request that the owner or operator submit additional information. Once the Administrator receives sufficient information, the Administrator shall approve, disapprove, or request changes to the plan within 120 days.

A. State and Federally Enforcable Section (continued)

(ii) Information required. The Emissions Averaging Plan shall contain the information listed in paragraphs (e)(4)(ii)(A) through (e)(4)(ii)(N) of 63.1335 for all emission points included in an emissions average.

(A) The required information shall include the identification of all emission points in the planned emissions average and, where applicable, notation of whether each storage vessel, continuous process vent, batch process vent, aggregate batch vent stream, and process wastewater stream is a Group 1 or Group 2 emission point, as defined in 63.1312 or as designated under 63.1332 (c)(3) through (c)(5).

(B) The required information shall include the projected emission debits and credits for each emission point and the sum for the emission points involved in the average calculated according to 63.1332. The projected credits shall be greater than or equal to the projected debits, as required under 63.1332(e)(3).

(C) The required information shall include the specific control technology or pollution prevention measure that will be used for each emission point included in the average and date of application or expected date of application.

(D) The required information shall include the specific identification of each emission point affected by a pollution prevention measure. To be considered a pollution prevention measure, the criteria in 63.1332(j)(1) shall be met. If the same pollution prevention measure reduces or eliminates emissions from multiple emission points in the average, the owner or operator shall identify each of these emission points.

(E) The required information shall include a statement that the compliance demonstration, monitoring, inspection, recordkeeping, and reporting provisions in 63.1332 (m), (n), and (o) that are applicable to each emission point in the emissions average will be implemented beginning on or before the date of compliance.

(F) The required information shall include documentation of the data listed in paragraphs (e)(4)(ii)(F)(1) through (e)(4)(ii)(F)(5) of 63.1335 for each storage vessel and continuous process vent subject to 63.1315 included in the average.

(1) The required documentation shall include the values of the parameters used to determine whether the emission point is Group 1 or Group 2. Where TRE index value is used for continuous process vent group determination, the estimated or measured values of the parameters used in the TRE equation in 63.115(d) and the resulting TRE index value shall be submitted.

(2) The required documentation shall include the estimated values of all parameters needed for input to the emission debit and credit calculations in 63.1332(g) and (h). These parameter values shall be specified in the affected source's Emissions Averaging Plan (or operating permit) as enforceable operating conditions. Changes to these parameters shall be reported as required by paragraph (e)(4)(iv) of 63.1335.

(3) The required documentation shall include the estimated percent reduction if a control technology achieving a lower percent reduction than the efficiency of the applicable reference control technology or standard is or will be applied to the emission point.

(4) The required documentation shall include the anticipated nominal efficiency if a control technology achieving a greater percent emission reduction than the efficiency of the reference control technology is or will be applied to the emission point. The procedures in 63.1332(i) shall be followed to apply for a nominal efficiency, and the report specified in paragraph (e)(7)(ii) of 63.1335 shall be submitted with the Emissions Averaging Plan as specified in paragraph (e)(7)(ii)(A) of 63.1335.

A. State and Federally Enforcable Section (continued)

(5) The required documentation shall include the monitoring plan specified in 63.122(b), to include the information specified in 63.120(d)(2)(i) and in either 63.120(d)(2)(ii) or (d)(2)(iii) for each storage vessel controlled with a closed-vent system using a control device other than a flare.

(G) The information specified in paragraph (f) of this section shall be included in the Emissions Averaging Plan for:

(1) Each continuous process vent subject to 63.1315 controlled by a pollution prevention measure or control technique for which monitoring parameters or inspection procedures are not specified in 63.114; and

(2) Each storage vessel controlled by pollution prevention or a control technique other than an internal or external floating roof or a closed vent system with a control device.

(H) The required information shall include documentation of the data listed in paragraphs (e)(4)(ii)(H)(1) through (e)(4)(ii)(H)(5) of 63.1335 for each collection of continuous process vents located in a process section within the affected source subject to 63.1316 (b)(1)(i), (b)(1)(ii), (b)(2)(i), (b)(2)(ii), or (c)(1) included in the average.

(1) For continuous process vents subject to 63.1316(b)(1)(i), the required documentation shall include the values of the parameters used to determine whether the emission point is Group 1 or Group 2. Continuous process vents subject to 63.1316 (b)(1)(ii), (b)(2)(i), (b)(2)(ii), or (c)(1) are considered Group 1 emission points for purposes of emissions averaging, as specified in 63.1332(c)(5).

(2) The required documentation shall include the estimated values of all parameters needed for input to the emission debit and credit calculations in 63.1332(g) and (h). These parameter values shall be specified in the affected source's Emissions Averaging Plan (or operating permit) as enforceable operating conditions. Changes to these parameters shall be reported as required by paragraph (e)(4)(iv) of 63.1335.

(3) For process sections generating debits or credits by comparing actual emissions expressed as kg HAP emissions per Mg of product to the applicable standard, the required documentation shall include the actual emission level expressed as kg HAP emissions per Mg of product.

(4) For process sections using combustion control devices, the required documentation shall include the estimated percent reduction if a control technology achieving a lower percent reduction than the efficiency of the applicable reference control technology or standard is or will be applied to the emission point.

(5) For process sections using combustion control devices, the required documentation shall include the anticipated nominal efficiency if a control technology achieving a greater percent emission reduction than the efficiency of the reference control technology is or will be applied to the emission point. The procedures in 63.1332(i) shall be followed to apply for a nominal efficiency.

(I) For each pollution prevention measure or control device used to reduce air emissions of organic HAP from each collection of continuous process vents located in a process section within the affected source subject to 63.1316 (b)(1)(i), (b)(1)(ii), (b)(2)(i), (b)(2)(ii), or (c)(1) and for which no monitoring parameters or inspection procedures are specified in 63.114, the information specified in paragraph (f) of 63.1335, Alternative Monitoring Parameters, shall be included in the Emissions Averaging Plan.

(J) The required information shall include documentation of the data listed in paragraphs (e)(4)(ii)(J)(1) through (e)(4)(ii)(J)(3) of 63.1335 for each batch process vent and aggregate batch vent stream included in the average.

(1) The required documentation shall include the values of the parameters used to determine whether the emission point is Group 1 or Group 2.

A. State and Federally Enforcable Section (continued)

(2) The required documentation shall include the estimated values of all parameters needed for input to the emission debit and credit calculations in 63.1332(g) and (h). These parameter values shall be specified in the affected source's Emissions Averaging Plan (or operating permit) as enforceable operating conditions. Changes to these parameters shall be reported as required by paragraph (e)(4)(iv) of 63.1335.

(3) For batch process vents, the required documentation shall include the estimated percent reduction for the batch cycle. For aggregate batch vent streams, the required documentation shall include the estimated percent reduction achieved on a continuous basis.

(K) For each pollution prevention measure or control device used to reduce air emissions of organic HAP from batch process vents or aggregate batch vent streams and for which no monitoring parameters or inspection procedures are specified in 63.1324, the information specified in paragraph (f) of 63.1335, Alternative Monitoring Parameters, shall be included in the Emissions Averaging Plan.

(L) The required information shall include documentation of the data listed in paragraphs (e)(4)(ii)(L)(1) through (e)(4)(ii)(L)(4) of 63.1335 for each process wastewater stream included in the average.

(1) The required documentation shall include the data used to determine whether the wastewater stream is a Group 1 or Group 2 wastewater stream.

(2) The required documentation shall include the estimated values of all parameters needed for input to the wastewater emission credit and debit calculations in 63.1332(g) and (h). These parameter values shall be specified in the affected source's Emissions Averaging Plan (or operating permit) as enforceable operating conditions. Changes to these parameters shall be reported as required by paragraph (e)(4)(iv) of 63.1335.

(3) The required documentation shall include the estimated percent reduction if:

(i) A control technology that achieves an emission reduction less than or equal to the emission reduction that would otherwise have been achieved by a steam stripper designed to the specifications found in 63.138(g) is or will be applied to the wastewater stream;

(ii) A control technology achieving less than or equal to 95 percent emission reduction is or will be applied to the vapor stream(s) vented and collected from the treatment processes; or

(iii) A pollution prevention measure is or will be applied.

(4) The required documentation shall include the anticipated nominal efficiency if the owner or operator plans to apply for a nominal efficiency under 63.1332(i). A nominal efficiency shall be applied for if:

(i) A control technology that achieves an emission reduction greater than the emission reduction that would have been achieved by a steam stripper designed to the specifications found in 63.138(g), is or will be applied to the wastewater stream; or

(ii) A control technology achieving greater than 95 percent emission reduction is or will be applied to the vapor stream(s) vented and collected from the treatment processes.

(M) For each pollution prevention measure, treatment process, or control device used to reduce air emissions of organic HAP from wastewater and for which no monitoring parameters or inspection procedures are specified in 63.143, the information specified in paragraph (f) of 63.1335, Alternative Monitoring Parameters, shall be included in the Emissions Averaging Plan.

A. State and Federally Enforcable Section (continued)

(N) The required information shall include documentation of the data required by 63.1332(k). The documentation shall demonstrate that the emissions from the emission points proposed to be included in the average will not result in greater hazard or, at the option of the Administrator, greater risk to human health or the environment than if the emission points were not included in an emissions average.

(iii) Supplement to Emissions Averaging Plan. The owner or operator required to prepare an Emissions Averaging Plan under paragraph (e)(4) of 63.1335 shall also prepare a supplement to the Emissions Averaging Plan for any additional alternative controls or operating scenarios that may be used to achieve compliance.

(iv) Updates to Emissions Averaging Plan. The owner or operator of an affected source required to submit an Emissions Averaging Plan under paragraph (e)(4) of 63.1335 shall also submit written updates of the Emissions Averaging Plan to the Administrator for approval under the circumstances described in paragraphs (e)(4)(iv)(A) through (e)(4)(iv)(C) of 63.1335 unless the relevant information has been included and submitted in an operating permit application or amendment.

(A) The owner or operator who plans to make a change listed in either paragraph (e)(4)(iv)(A)(1) or (e)(4)(iv)(A)(2) of 63.1335 shall submit an Emissions Averaging Plan update at least 120 days prior to making the change.

(1) An Emissions Averaging Plan update shall be submitted whenever an owner or operator elects to achieve compliance with the emissions averaging provisions in 63.1332 by using a control technique other than that specified in the Emissions Averaging Plan or plans to monitor a different parameter or operate a control device in a manner other than that specified in the Emissions Averaging Plan.

(2) An Emissions Averaging Plan update shall be submitted whenever an emission point or a TPU is added to an existing affected source and is planned to be included in an emissions average, or whenever an emission point not included in the emissions average described in the Emissions Averaging Plan is to be added to an emissions average. The information in paragraph (e)(4) of 63.1335 shall be updated to include the additional emission point.

(B) The owner or operator who has made a change as defined in paragraph (e)(4)(iv)(B)(1) or (e)(4)(iv)(B)(2) of 63.1335 shall submit an Emissions Averaging Plan update within 90 days after the information regarding the change is known to the affected source. The update may be submitted in the next quarterly periodic report if the change is made after the date the Notification of Compliance Status is due.

(1) An Emissions Averaging Plan update shall be submitted whenever a process change is made such that the group status of any emission point in an emissions average changes.

(2) An Emissions Averaging Plan update shall be submitted whenever a value of a parameter in the emission credit or debit equations in 63.1332 (g) or (h) changes such that it is below the minimum or above the maximum established level specified in the Emissions Averaging Plan and causes a decrease in the projected credits or an increase in the projected debits.

(C) The Administrator shall approve or request changes to the Emissions Averaging Plan update within 120 days of receipt of sufficient information regarding the change for emission points included in emissions averages.

A. State and Federally Enforcable Section (continued)

43. [40 CFR 63.1335(e)(5)]

Notification of Compliance Status. For existing and new affected sources, a Notification of Compliance Status shall be submitted. For equipment leaks subject to 63.1331, the owner or operator shall submit the information required in 63.182(c) in the Notification of Compliance Status within 150 days after the first applicable compliance date for equipment leaks in the affected source, and an update shall be provided in the first Periodic Report that is due at least 150 days after each subsequent applicable compliance date for equipment leaks in the affected source. For all other emission points, including heat exchange systems, the Notification of Compliance Status shall contain the information listed in paragraphs (e)(5)(i) through (e)(5)(xi) of 63.1335, as applicable, and shall be submitted no later than 150 days after the compliance dates specified in this subpart.

(i) The results of any emission point group determinations, process section applicability determinations, performance tests, inspections, any other information used to demonstrate compliance, values of monitored parameters established during performance tests, and any other information required to be included in the Notification of Compliance Status under 63.1311(m), 63.122, and 63.1314 for storage vessels, 63.117 for continuous process vents, 63.146 for process wastewater, 63.1316 through 63.1320 for continuous process vents subject to 63.1316, 63.1327 for batch process vents, 63.1329 for process contact cooling towers, and 63.1332 for emission points included in an emissions average. In addition, the owner or operator of an affected source shall comply with paragraphs (e)(5)(i)(A) and (e)(5)(i)(B) of 63.1335.

(A) For performance tests, group determinations, and process section applicability determinations that are based on measurements, the Notification of Compliance Status shall include one complete test report, as described in paragraph (e)(5)(i)(B) of 63.1335, for each test method used for a particular kind of emission point. For additional tests performed for the same kind of emission point using the same method, the results and any other information, from the test report, that is requested on a case-by-case basis by the Administrator shall be submitted, but a complete test report is not required.

(B) A complete test report shall include a brief process description, sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.

(ii) For each monitored parameter for which a maximum or minimum level is required to be established under 63.114(e) for continuous process vents, 63.1324 for batch process vents and aggregate batch vent streams, 63.143(f) for process wastewater, 63.1332(m) for emission points in emissions averages, paragraph (e)(8) of 63.1335, or paragraph (f) of 63.1335, the Notification of Compliance Status shall contain the information specified in paragraphs (e)(5)(ii)(A) through (e)(5)(ii)(D) of 63.1335, unless this information has been established and provided in the operating permit application. Further, as described in 63.1314(a)(9), for those storage vessels for which the monitoring plan required by 63.1314(a)(9) specifies compliance with the provisions of 63.1334, the owner or operator shall provide the information specified in paragraphs (e)(5)(ii)(A) through (e)(5)(ii)(D) of 63.1335 for each monitored parameter, unless this information has been established and provided in the operating permit application. For those storage vessels for which the monitoring plan required by 63.1314(a)(9) does not require compliance with the provisions of 63.1334, the owner or operator shall provide the information specified in 63.120(d)(3) as part of the Notification of Compliance Status, unless this information has been established and provided in the operating permit application.

(A) The required information shall include the specific maximum or minimum level of the monitored parameter(s) for each emission point.

(B) The required information shall include the rationale for the specific maximum or minimum level for each parameter for each emission point, including any data and calculations used to develop the level and a description of why the level indicates proper operation of the control device.

A. State and Federally Enforcable Section (continued)

(C) The required information shall include a definition of the affected source's operating day, as specified in paragraph (d)(3)(ii) of 63.1335, for purposes of determining daily average values or batch cycle daily average values of monitored parameters.

(D) For batch process vents, the required information shall include a definition of each batch cycle that requires the control of one or more batch emission episodes during the cycle, as specified in 63.1325(c)(2) and 63.1334(b)(3)(iii).

(iii) For emission points included in an emissions average, the Notification of Compliance Status shall contain the values of all parameters needed for input to the emission credit and debit equations in 63.1332 (g) and (h), calculated or measured according to the procedures in 63.1332 (g) and (h), and the resulting calculation of credits and debits for the first quarter of the year. The first quarter begins on the compliance date specified.

(iv) The determination of applicability for flexible operation units as specified in 63.1310(f).

(v) The parameter monitoring levels for flexible operation units, and the basis on which these levels were selected, or a demonstration that these levels are appropriate at all times, as specified in 63.1310(f)(7).

(vi) The results for each predominant use determination made under 63.1310(g), for storage vessels assigned to an affected source subject to this subpart.

(vii) The results for each predominant use determination made under 63.1310(h), for recovery operations equipment assigned to an affected source subject to this subpart.

(viii) For owners or operators of Group 2 batch process vents establishing a batch mass input limitation as specified in 63.1325(g), the affected source's operating year for purposes of determining compliance with the batch mass input limitation.

(ix) If any emission point is subject to this subpart and to other standards as specified in 63.1311, and if the provisions of 63.1311 allow the owner or operator to choose which testing, monitoring, reporting, and recordkeeping provisions will be followed, then the Notification of Compliance Status shall indicate which rule's requirements will be followed for testing, monitoring, reporting, and record keeping.

(x) An owner or operator who transfers a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream for treatment pursuant to 63.132(g) shall include in the Notification of Compliance Status the name and location of the transferee and a description of the Group 1 wastewater stream or residual sent to the treatment facility.

(xi) An owner or operator complying with paragraph (h)(1) of 63.1335 shall notify the Administrator of the election to comply with paragraph (h)(1) of 63.1335 as part of the Notification of Compliance Status or as part of the appropriate Periodic Report as specified in paragraph (e)(6)(ix) of 63.1335.

A. State and Federally Enforcable Section (continued)

44. [40 CFR 63.1335(e)(6)]

Periodic Reports. For existing and new affected sources, the owner or operator shall submit Periodic Reports as specified in paragraphs (e)(6)(i) through (e)(6)(xi) of 63.1335. In addition, for equipment leaks subject to 63.1331, the owner or operator shall submit the information specified in 63.182(d) under the conditions listed in 63.182(d), and for heat exchange systems subject to 63.1328, the owner or operator shall submit the information specified in 63.104(f)(2) as part of the Periodic Report required by this paragraph (e)(6). Section 63.1334 shall govern the use of monitoring data to determine compliance for Group 1 emissions points and for Group 1 and Group 2 emission points included in emissions averages with the following exception: As discussed in 63.1314(a)(9), for storage vessels to which the provisions of 63.1334 do not apply, as specified in the monitoring plan required by 63.120(d)(2), the owner or operator is required to comply with the requirements set out in the monitoring plan, and monitoring records may be used to determine compliance.

(i) Except as specified in paragraphs (e)(6)(xi) and (e)(6)(xii) of 63.1335, a report containing the information in paragraph (e)(6)(ii) of 63.1335 or containing the information in paragraphs (e)(6)(iii) through (e)(6)(x) of 63.1335, as appropriate, shall be submitted semiannually no later than 60 days after the end of each 6-month period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status is due.

(ii) If none of the compliance exceptions specified in paragraphs (e)(6)(iii) through (e)(6)(ix) of 63.1335 occurred during the 6-month period, the Periodic Report required by paragraph (e)(6)(i) of 63.1335 shall be a statement that there were no compliance exceptions as described in this paragraph for the 6-month period covered by that report and no activities specified in paragraphs (e)(6)(iii) through (e)(6)(ix) of 63.1335 occurred during the 6-month period covered by that report.

(iii) For an owner or operator of an affected source complying with the provisions of 63.1314 through 63.1330 for any emission point or process section, Periodic Reports shall include:

(A) All information specified in 63.122 for storage vessels; 63.117 and 63.118 and 63.1320 for continuous process vents, as applicable; 63.1327 for batch process vents and aggregate batch vent streams; 63.104 for heat exchange systems; and 63.146 for process wastewater;

(B) The daily average values or batch cycle daily average values of monitored parameters for both excused excursions, as defined in 63.1334(g), and unexcused excursions, as defined in 63.1334(f). For excursions caused by lack of monitoring data, the start-time and duration of periods when monitoring data were not collected shall be specified.

(C) Paragraph (e)(6)(iii)(C) is reserved.

(D) The information in paragraphs (e)(6)(iii)(D)(1) through (e)(6)(iii)(D)(4) of 63.1335, as applicable:

(1) Any supplements to the Emissions Averaging Plan, as required in paragraph (e)(4)(iii) of 63.1335;

A. State and Federally Enforcable Section (continued)

(2) Notification if a process change is made such that the group status of any emission point changes from Group 2 to Group 1. The owner or operator is not required to submit a notification of a process change if that process change caused the group status of an emission point to change from Group 1 to Group 2. However, until the owner or operator notifies the Administrator that the group status of an emission point has changed from Group 1 to Group 2, the owner or operator is required to continue to comply with the Group 1 requirements for that emission point. This notification may be submitted at any time.

(3) Notification if one or more emission point(s) (other than equipment leaks) or one or more TPPU is added to an affected source. The owner or operator shall submit the information contained in paragraphs (e)(6)(iii)(D)(3)(i) through (e)(6)(iii)(D)(3)(ii) of 63.1335:

(i) A description of the addition to the affected source; and

(ii) Notification of the group status of the additional emission point or all emission points in the TPPU.

(4) For process wastewater streams sent for treatment pursuant to 63.132(g), reports of changes in the identity of the treatment facility or transferee.

(E) The information in paragraph (b)(1)(ii) of 63.1335 for reports of start-up, shutdown, and malfunction.

(iv) For each batch process vent with a batch mass input limitation, every second Periodic Report shall include the mass of HAP or material input to the batch unit operation during the 12-month period covered by the preceding and current Periodic Reports, and a statement of whether the batch process vent was in or out of compliance with the batch mass input limitation.

(v) If any performance tests are reported in a Periodic Report, the following information shall be included:

(A) One complete test report shall be submitted for each test method used for a particular kind of emission point tested. A complete test report shall contain the information specified in paragraph (e)(5)(i)(B) of 63.1335.

(B) For additional tests performed for the same kind of emission point using the same method, results and any other information, pertaining to the performance test, that is requested on a case-by-case basis by the Administrator shall be submitted, but a complete test report is not required.

(vi) Notification of a change in the primary product of a TPPU, in accordance with the provisions in 63.1310(f). This includes a change in primary product from one thermoplastic product to either another thermoplastic product or to a non-thermoplastic product.

(vii) The results for each change made to a predominant use determination made under 63.1310(g) for a storage vessel that is assigned to an affected source subject to this subpart after the change.

(viii) The Periodic Report shall include the results for each change made to a predominant use determination made under 63.1310(h) for recovery operations equipment assigned to an affected source subject to this subpart after the change.

(ix) An owner or operator complying with paragraph (h)(1) of 63.1335 shall notify the Administrator of the election to comply with paragraph (h)(1) of 63.1335 as part of the Periodic Report or as part of the Notification of Compliance Status as specified in paragraph (e)(5)(xi) of 63.1335.

(x) An owner or operator electing not to retain daily average or batch cycle daily average values under paragraph (h)(2) of 63.1335 shall notify the Administrator as specified in paragraph (h)(2)(i) of 63.1335.

A. State and Federally Enforcable Section (continued)

(xi) The owner or operator of an affected source shall submit quarterly reports for all emission points included in an emissions average as specified in paragraphs (e)(6)(xi)(A) through (e)(6)(xi)(C) of 63.1335.

(A) The quarterly reports shall be submitted no later than 60 days after the end of each quarter. The first report shall be submitted with the Notification of Compliance Status no later than 150 days after the compliance date.

(B) The quarterly reports shall include the information specified in paragraphs (e)(6)(xi)(B)(1) through (e)(6)(xi)(B)(7) of 63.1335 for all emission points included in an emissions average.

(1) The credits and debits calculated each month during the quarter;

(2) A demonstration that debits calculated for the quarter are not more than 1.30 times the credits calculated for the quarter, as required under 63.1332(e)(4);

(3) The values of any inputs to the debit and credit equations in 63.1332(g) and (h) that change from month to month during the quarter or that have changed since the previous quarter;

(4) Results of any performance tests conducted during the reporting period including one complete report for each test method used for a particular kind of emission point as described in paragraph (e)(6)(v) of 63.1335;

(5) Reports of daily average (or batch cycle daily average) values of monitored parameters for excursions as defined in 63.1334(f);

(6) For excursions caused by lack of monitoring data, the duration of periods when monitoring data were not collected shall be specified; and

(7) Any other information the affected source is required to report under the operating permit or Emissions Averaging Plan for the affected source.

A. State and Federally Enforcable Section (continued)

(C) Every fourth quarterly report shall include the following:

(1) A demonstration that annual credits are greater than or equal to annual debits as required by 63.1332(e)(3); and

(2) A certification of compliance with all the emissions averaging provisions in 63.1332.

(xii) The owner or operator of an affected source shall submit quarterly reports for particular emission points and process sections not included in an emissions average as specified in paragraphs (e)(6)(xii)(A) through (e)(6)(xii)(D) of 63.1335.

(A) The owner or operator of an affected source shall submit quarterly reports for a period of 1 year for an emission point or process section that is not included in an emissions average if:

(1) A control or recovery device for a particular emission point or process section has more excursions, as defined in 63.1334(f), than the number of excused excursions allowed under 63.1334(g) for a semiannual reporting period; or

(2) The Administrator requests that the owner or operator submit quarterly reports for the emission point or process section.

(B) The quarterly reports shall include all information specified in paragraphs (e)(6)(iii) through (e)(6)(ix) of 63.1335 applicable to the emission point or process section for which quarterly reporting is required under paragraph (e)(6)(xii)(A) of 63.1335. Information applicable to other emission points within the affected source shall be submitted in the semiannual reports required under paragraph (e)(6)(i) of 63.1335.

(C) Quarterly reports shall be submitted no later than 60 days after the end of each quarter.

(D) After quarterly reports have been submitted for an emission point for 1 year without more excursions occurring (during that year) than the number of excused excursions allowed under 63.1334(g), the owner or operator may return to semiannual reporting for the emission point or process section.

45. [40 CFR 63.1335(e)(7)]

Other reports. Other reports shall be submitted as specified in paragraphs (e)(7)(i) through (e)(7)(iv) of 63.1335.

(i) For storage vessels, the notifications of inspections required by 63.1314 shall be submitted as specified in 63.122 (h)(1) and (h)(2).

(ii) For owners or operators of affected sources required to request approval for a nominal control efficiency for use in calculating credits for an emissions average, the information specified in 63.1332(i) shall be submitted as specified in paragraph (e)(7)(ii)(A) or (B) of 63.1335, as appropriate.

(A) If use of a nominal control efficiency is part of the initial Emissions Averaging Plan described in paragraph (e)(4)(ii) of 63.1335, the information shall be submitted with the Emissions Averaging Plan.

(B) If an owner or operator elects to use a nominal control efficiency after submittal of the initial Emissions Averaging Plan as described in paragraph (e)(4)(ii) of 63.1335, the information shall be submitted at the discretion of the owner or operator.

(iii) When the conditions of 63.1310(f)(3)(iii), 63.1310(f)(9), or 63.1310(f)(10)(iii) are met, reports of changes to the primary product for a TPPU or process unit as required by 63.1310(f)(3)(iii), 63.1310(f)(9), or 63.1310(f)(10)(iii)(C), respectively, shall be submitted.

(iv) Owners or operators of TPPU or emission points (other than equipment leak components subject to 63.1331) that are subject to 63.1310(i)(1) or (i)(2) shall submit a report as specified in paragraphs (e)(7)(iv)(A) and (B) of 63.1335.

A. State and Federally Enforcable Section (continued)

(A) Reports shall include:

- (1) A description of the process change or addition, as appropriate;
- (2) The planned start-up date and the appropriate compliance date, according to 63.1310(i)(1) or (2); and
- (3) Identification of the group status of emission points (except equipment leak components subject to 63.1331) specified in paragraphs (e)(7)(iv)(A)(3)(i) through (e)(7)(iv)(A)(3)(iii) of 63.1335, as applicable.
 - (i) All the emission points in the added TPPU as described in 63.1310(i)(1).
 - (ii) All the emission points in an affected source designated as a new affected source under 63.1310(i)(2)(i).
 - (iii) All the added or created emission points as described in 63.1310(i)(2)(ii) or (i)(2)(iii).
- (4) If the owner or operator wishes to request approval to use alternative monitoring parameters, alternative continuous monitoring or recordkeeping, alternative controls, engineering assessment to estimate emissions from a batch emissions episode, or wishes to establish parameter monitoring levels according to the procedures contained in 63.1334(c) or (d), a Precompliance Report shall be submitted in accordance with paragraph (e)(7)(iv)(B) of 63.1335.

(B) Reports shall be submitted as specified in paragraphs (e)(7)(iv)(B)(1) through (e)(7)(iv)(B)(3) of 63.1335, as appropriate.

- (1) Owners or operators of an added TPPU subject to 63.1310(i)(1) shall submit a report no later than 180 days prior to the compliance date for the TPPU.
- (2) Owners or operators of an affected source designated as a new affected source under 63.1310(i)(2)(i) shall submit a report no later than 180 days prior to the compliance date for the affected source.
- (3) Owners or operators of any emission point (other than equipment leak components subject to 63.1331) subject to 63.1310(i)(2)(ii) or (i)(2)(iii) shall submit a report no later than 180 days prior to the compliance date for those emission points.

46. [40 CFR 63.1335(e)(8)]

Operating permit application. An owner or operator who submits an operating permit application instead of an Emissions Averaging Plan or a Precompliance Report shall include the following information with the operating permit application:

- (i) The information specified in paragraph (e)(4) of 63.1335 for points included in an emissions average; and
- (ii) The information specified in paragraph (e)(3) of 63.1335, Precompliance Report, as applicable.

A. State and Federally Enforcable Section (continued)

47. [40 CFR 63.1335(f)]

Alternative monitoring parameters. The owner or operator who has been directed by any section of this subpart or any section of another subpart referenced by this subpart, that expressly referenced this paragraph (f) to set unique monitoring parameters, or who requests approval to monitor a different parameter than those specified in 63.1314 for storage vessels, 63.1315 or 63.1317, as appropriate, for continuous process vents, 63.1321 for batch process vents and aggregate batch vent streams, or 63.1330 for process wastewater shall submit the information specified in paragraphs (f)(1) through (f)(3) of 63.1335 in the Precompliance Report, as required by paragraph (e)(3) of 63.1335. The owner or operator shall retain for a period of 5 years each record required by paragraphs (f)(1) through (f)(3) of 63.1335.

(1) The required information shall include a description of the parameter(s) to be monitored to ensure the recovery device, control device, or pollution prevention measure is operated in conformance with its design and achieves the specified emission limit, percent reduction, or nominal efficiency, and an explanation of the criteria used to select the parameter(s).

(2) The required information shall include a description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation, the schedule for this demonstration, and a statement that the owner or operator will establish a level for the monitored parameter as part of the Notification of Compliance Status report required in paragraph (e)(5) of 63.1335, unless this information has already been included in the operating permit application.

(3) The required information shall include a description of the proposed monitoring, record keeping, and reporting system, to include the frequency and content of monitoring, recordkeeping, and reporting. Further, the rationale for the proposed monitoring, recordkeeping, and reporting system shall be included if either condition in paragraph (f)(3)(i) or (f)(3)(ii) of 63.1335 is met:

(i) If monitoring and recordkeeping is not continuous; or

(ii) If reports of daily average values will not be included in Periodic Reports when the monitored parameter value is above the maximum level or below the minimum level as established in the operating permit or the Notification of Compliance Status.

48. [40 CFR 63.1335(g)]

Alternative continuous monitoring and record keeping. An owner or operator choosing not to implement the provisions listed in 63.1315 or 63.1317, as appropriate, for continuous process vents, 63.1321 for batch process vents and aggregate batch vent streams, or 63.1330 for process wastewater, may instead request approval to use alternative continuous monitoring and record keeping provisions according to the procedures specified in paragraphs (g)(1) through (g)(4) of 63.1335. Requests shall be submitted in the Precompliance Report as specified in paragraph (e)(3)(iv) of 63.1335, if not already included in the operating permit application, and shall contain the information specified in paragraphs (g)(2)(ii) and (g)(3)(ii) of 63.1335, as applicable.

(1) The provisions in 63.8(f)(5)(i) shall govern the review and approval of requests.

(2) An owner or operator of an affected source that does not have an automated monitoring and recording system capable of measuring parameter values at least once every 15 minutes and that does not generate continuous records may request approval to use a nonautomated system with less frequent monitoring, in accordance with paragraphs (g)(2)(i) and (g)(2)(ii) of 63.1335.

A. State and Federally Enforcable Section (continued)

- (i) The requested system shall include manual reading and recording of the value of the relevant operating parameter no less frequently than once per hour. Daily average (or batch cycle daily average) values shall be calculated from these hourly values and recorded.
- (ii) The request shall contain:
 - (A) A description of the planned monitoring and record keeping system;
 - (B) Documentation that the affected source does not have an automated monitoring and recording system;
 - (C) Justification for requesting an alternative monitoring and record keeping system; and
 - (D) Demonstration to the Administrator's satisfaction that the proposed monitoring frequency is sufficient to represent control or recovery device operating conditions, considering typical variability of the specific process and control or recovery device operating parameter being monitored.
- (3) An owner or operator may request approval to use an automated data compression recording system that does not record monitored operating parameter values at a set frequency, but records all values that meet set criteria for variation from previously recorded values, in accordance with paragraphs (g)(3)(i) and (g)(3)(ii) of 63.1335.
 - (i) The requested system shall be designed to:
 - (A) Measure the operating parameter value at least once during every 15 minute period;
 - (B) Except for the monitoring of batch process vents, calculate hourly average values each hour during periods of operation;
 - (C) Record the date and time when monitors are turned off or on;
 - (D) Recognize unchanging data that may indicate the monitor is not functioning properly, alert the operator, and record the incident;
 - (E) Calculate daily average (or batch cycle daily average) values of the monitored operating parameter based on all measured data; and
 - (F) If the daily average is not an excursion, as defined in 63.1334(f), the data for that operating day may be converted to hourly average values and the four or more individual records for each hour in the operating day may be discarded.
 - (ii) The request shall contain:
 - (A) A description of the monitoring system and data compression recording system, including the criteria used to determine which monitored values are recorded and retained;
 - (B) The method for calculating daily averages and batch cycle daily averages; and
 - (C) A demonstration that the system meets all criteria in paragraph (g)(3)(i) of 63.1335.
- (4) An owner or operator may request approval to use other alternative monitoring systems according to the procedures specified in 63.8(f)(4).

A. State and Federally Enforcable Section (continued)

49. [40 CFR 63.1335(h)]
Reduced record keeping program. For any parameter with respect to any item of equipment, the owner or operator may implement the record keeping requirements specified in paragraph (h)(1) or (h)(2) of 63.1335 as alternatives to the continuous operating parameter monitoring and record keeping provisions that would otherwise apply under this subpart. The owner or operator shall retain for a period of 5 years each record required by paragraph (h)(1) or (h)(2) of 63.1335, except as otherwise provided in paragraph (h)(1)(vi)(D) of 63.1335.
50. [40 CFR 63.1335(h)(1)]
The owner or operator may retain only the daily average (or batch cycle daily average) value, and is not required to retain more frequent monitored operating parameter values, for a monitored parameter with respect to an item of equipment, if the requirements of paragraphs (h)(1)(i) through (h)(1)(vi) of 63.1335 are met. An owner or operator electing to comply with the requirements of paragraph (h)(1) of 63.1335 shall notify the Administrator in the Notification of Compliance Status as specified in paragraph (e)(5)(xi) of 63.1335 or, if the Notification of Compliance Status has already been submitted, in the Periodic Report immediately preceding implementation of the requirements of paragraph (h)(1) of 63.1335 as specified in paragraph (e)(6)(ix) of 63.1335.
- (i) The monitoring system is capable of detecting unrealistic or impossible data during periods of operation other than start-ups, shutdowns, or malfunctions (e.g., a temperature reading of -200 deg. C on a boiler), and will alert the operator by alarm or other means. The owner or operator shall record the occurrence. All instances of the alarm or other alert in an operating day constitute a single occurrence.
- (ii) The monitoring system generates, updated at least hourly throughout each operating day, a running average of the monitoring values that have been obtained during that operating day, and the capability to observe this running average is readily available to the Administrator on-site during the operating day. The owner or operator shall record the occurrence of any period meeting the criteria in paragraphs (h)(1)(ii)(A) through (h)(1)(ii)(C) of 63.1335. All instances in an operating day constitute a single occurrence.
- (A) The running average is above the maximum or below the minimum established limits;
- (B) The running average is based on at least six 1-hour average values; and
- (C) The running average reflects a period of operation other than a start-up, shutdown, or malfunction.
- (iii) The monitoring system is capable of detecting unchanging data during periods of operation other than start-ups, shutdowns, or malfunctions, except in circumstances where the presence of unchanging data is the expected operating condition based on past experience (e.g., pH in some scrubbers), and will alert the operator by alarm or other means. The owner or operator shall record the occurrence. All instances of the alarm or other alert in an operating day constitute a single occurrence.
- (iv) The monitoring system will alert the owner or operator by an alarm or other means, if the running average parameter value calculated under paragraph (h)(1)(ii) of 63.1335 reaches a set point that is appropriately related to the established limit for the parameter that is being monitored.

A. State and Federally Enforcable Section (continued)

(v) The owner or operator shall verify the proper functioning of the monitoring system, including its ability to comply with the requirements of paragraph (h)(1) of 63.1335, at the times specified in paragraphs (h)(1)(v)(A) through (h)(1)(v)(C). The owner or operator shall document that the required verifications occurred.

(A) Upon initial installation.

(B) Annually after initial installation.

(C) After any change to the programming or equipment constituting the monitoring system, which might reasonably be expected to alter the monitoring system's ability to comply with the requirements of this section.

(vi) The owner or operator shall retain the records identified in paragraphs (h)(1)(vi)(A) through (h)(1)(vi)(D) of 63.1335.

(A) Identification of each parameter, for each item of equipment, for which the owner or operator has elected to comply with the requirements of paragraph (h) of 63.1335.

(B) A description of the applicable monitoring system(s), and of how compliance will be achieved with each requirement of paragraphs (h)(1)(i) through (h)(1)(v) of 63.1335. The description shall identify the location and format (e.g., on-line storage, log entries) for each required record. If the description changes, the owner or operator shall retain both the current and the most recent superseded description, as provided in paragraph (a) of 63.1335, except as provided in paragraph (h)(1)(vi)(D) of 63.1335.

(C) A description, and the date, of any change to the monitoring system that would reasonably be expected to impair its ability to comply with the requirements of paragraph (h)(1) of 63.1335.

(D) Owners and operators subject to paragraph (h)(1)(vi)(B) of 63.1335 shall retain the current description of the monitoring system as long as the description is current. The current description shall, at all times, be retained on-site or be accessible from a central location by computer or other means that provides access within 2 hours after a request. The owner or operator shall retain all superseded descriptions for at least 5 years after the date of their creation. Superseded descriptions shall be retained on-site (or accessible from a central location by computer or other means that provides access within 2 hours after a request) for at least 6 months after their creation. Thereafter, superseded descriptions may be stored off-site.

51. [40 CFR 63.1335(h)(2)]

If an owner or operator has elected to implement the requirements of paragraph (h)(1) of 63.1335 for a monitored parameter with respect to an item of equipment and a period of 6 consecutive months has passed without an excursion as defined in paragraph (h)(2)(iv) of 63.1335, the owner or operator is no longer required to record the daily average (or batch cycle daily average) value for any operating day when the daily average (or batch cycle daily average) value is less than the maximum or greater than the minimum established limit. With approval by the Administrator, monitoring data generated prior to the compliance date of this subpart shall be credited toward the period of 6 consecutive months, if the parameter limit and the monitoring accomplished during the period prior to the compliance date was required and/or approved by the Administrator.

(i) If the owner or operator elects not to retain the daily average (or batch cycle daily average) values, the owner or operator shall notify the Administrator in the next Periodic Report as specified in paragraph (e)(6)(x) of 63.1335. The notification shall identify the parameter and unit of equipment.

A. State and Federally Enforcable Section (continued)

(ii) If, on any operating day after the owner or operator has ceased recording daily average (or batch cycle daily average) values as provided in paragraph (h)(2) of 63.1335, there is an excursion as defined in paragraph (h)(2)(iv) of 63.1335, the owner or operator shall immediately resume retaining the daily average (or batch cycle daily average) value for each operating day and shall notify the Administrator in the next Periodic Report. The owner or operator shall continue to retain each daily average (or batch cycle daily average) value until another period of 6 consecutive months has passed without an excursion as defined in paragraph (h)(2)(iv) of 63.1335.

(iii) The owner or operator shall retain the records specified in paragraphs (h)(1)(i) through (h)(1)(iii) of 63.1335, for the duration specified in paragraph (h) of 63.1335. For any calendar week, if compliance with paragraphs (h)(1)(i) through (h)(1)(iv) of 63.1335 does not result in retention of a record of at least one occurrence or measured parameter value, the owner or operator shall record and retain at least one parameter value during a period of operation other than a start-up, shutdown, or malfunction.

(iv) For purposes of paragraph (h) of 63.1335, an excursion means that the daily average (or batch cycle daily average) value of monitoring data for a parameter is greater than the maximum, or less than the minimum established value, except as provided in paragraphs (h)(2)(iv)(A) and (h)(2)(iv)(B) of 63.1335.

(A) The daily average (or batch cycle daily average) value during any start-up, shutdown, or malfunction shall not be considered an excursion for purposes of paragraph (h)(2) of 63.1335, if the owner or operator follows the applicable provisions of the start-up, shutdown, and malfunction plan required by 63.6(e)(3).

(B) An excused excursion, as described in 63.1334(g), shall not be considered an excursion for purposes of paragraph (h)(2) of 63.1335.

- 52.** If USEPA changes 40 CFR Part 63, Subpart JJJ, the permittee may request conforming modifications to this permit.

B. State Only Enforceable Section

1. The following insignificant emissions units are located at this facility:

- B002 - boiler gas vent;
- B004 - gas fired boiler - polystyrene;
- B006 - natural gas fired space heater;
- B007 - 504 building heaters;
- B009 - line 1 M/L space heater;
- B013 - rail car wash water;
- B014 - rail car/wash drying air heater;
- B017 - diesel fire water pump;
- B018 - diesel fire pump;
- B019 - performance forms space heater;
- T006 - HCFC - 142b storage tank;
- T007 - isobutane storage tank;
- T008 - HFC - 152a storage tank;
- Z001 - waste water treatment;
- Z005 - EtCl storage tank;
- Z006 - CO2 storage tank;
- Z007 - PF line 3 space heater;
- Z008 - sill seal space heaters;
- Z009 - propane storage tank;
- Z010 - line 1 M/L ink storage vent;
- Z011 - line 1 M/L ink printer;
- Z012 - PF line 3 ink storage vent;
- Z013 - PF line 3 ink printer;
- Z014 - line 1 M/L pin mixer;
- Z015 - line 1 M/L laminator;
- Z016 - PF line 3 pin mixer;
- Z017 - PF line 3 laminator;
- Z019 - polystyrene railcar unloading;
- Z020 - polystyrene storage silo vent;
- Z021 - line 1 M/L day bin;
- Z022 - PF line 3 day bin;
- Z023 - PF line 3 add. trans;
- Z024 - line 1 M/L add. trans;
- Z026 - recycle storage silo vent;
- Z027 - recycle storage silo vent;
- Z028 - recycle storage;
- Z029 - line 1 M/L recycle day;
- Z030 - Pf line 3 recycle day;
- Z033 - sill seal hot wire cutter;
- Z034 - thermomass punch;
- Z035 - maintenance welding area;
- Z036 - 534 building lab hood;
- Z100 - add transfer blower;
- Z101 - PF storage silo vent;
- Z102 - PF line 1 day bin;
- Z103 - line 1 recycle day bin;
- Z105 - line 1 gear pump;
- Z106 - line 1 pin mixer HO heater;
- Z107 - line 1 pin mixer seal 01;
- Z108 - line 1 trim cooler;
- Z109 - PF line 2 day bin;
- Z110 - line 2 recycle day bin;
- Z112 - line 2 gear pump;
- Z119 - recycle PF silo vents;
- Z120 - boiler condenser tank;

- B. State Only Enforceable Section**
- Z120 - boiler condenser tank;
 - Z122 - 507 Warehouse heater - west;
 - Z123 - 507 warehouse heater - east;
 - Z124 - 507 curing warehouse heaters;
 - Z125 - 504 loading dock heaters;

- Z126 - 500 building heaters;
- Z127 - line 1 ink jet printer;
- Z128 - line 1 ink jet storage tank;
- Z129 - line 2 ink jet printer;
- Z130 - line 2 ink jet storage tank;
- Z132 - 509 building heaters;
- Z133 - PF production storage building;
- Z134 - 509 building heaters; and
- Z135 - sill seal production storage.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within a permit to install for the emissions unit.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Dowtherm Boiler R-1 (B010)

Activity Description: Dowtherm Boiler R-1 (StyronTM)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
9 mmBtu/hr per hour natural gas, no. 2 fuel oil, and byproduct fired boiler	OAC rule 3745-31-05(A)(3) (PTI 07-420)	0.18 lb/hr of particulate emissions
		0.79 tpy of particulate emissions
		2.73 lbs/hr of nitrogen oxides (NOx)
		11.96 tpy of NOx
		3.66 lbs/hr of sulfur dioxide (SO2)
		16.05 tpy of SO2
		0.047 lb/hr of volatile organic compounds (VOC)
		0.21 tpy of VOC
		0.004 lb/hr of carbon monoxide (CO)
		0.02 tpy of CO
		CO emissions shall not exceed 100 ppmv on a dry basis corrected to 7% oxygen as a rolling, hourly average
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07, 3745-17-10, 3745-18-06, 3745-21-08 and 3745-23-06.
		See A.I.2.a below.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-10(B)(1)	Particulate emissions shall not exceed 0.020 lb/mmBtu of actual heat input.
	OAC rule 3745-18-06(B)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.d below.

2. Additional Terms and Conditions

- 2.a** Compliance with 40 CFR Part 266, Subpart H and sections A.II.1 and A.II.2 below shall satisfy the best available technology requirement for this emissions unit specified in OAC rule 3745-31-05(A)(3).
- 2.b** Fuel burning equipment which have heat input capacities equal to or less than 10 mmBtu/hr rated capacity are exempt from OAC rule 3745-18-06(D), (F), and (G).
- 2.c** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-420.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.d** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-420.

II. Operational Restrictions

- 1. No. 2 fuel oil shall be burned for emergency backup only when natural gas is not available.
- 2. No. 2 fuel oil shall have a sulfur content of less than or equal to 0.4 percent, by weight.
- 3. The amount of fuel burned in this emissions unit shall not exceed 50% / 50% mix of natural gas (or no. 2 fuel oil as emergency backup) and byproduct fuel. This 50% byproduct fuel equates to 228 lbs/hr of byproduct waste fuel.

III. Monitoring and/or Record Keeping Requirements

- 1. The permittee shall maintain daily records of the quantity of each fuel burned in this emissions unit, including the ratio of the mix of byproduct waste fuel to natural gas (or no. 2 fuel oil as emergency backup).

III. Monitoring and/or Record Keeping Requirements (continued)

2. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu).

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as ASTM methods D240, D4294, D6010), or equivalent methods as approved by the Director.

3. The permittee shall maintain records of the total quantity of byproduct fuel employed in this emissions unit, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu).

The permittee shall perform the analyses for sulfur content and heat content on a monthly basis in accordance with the procedures in 40 CFR Part 266, or the appropriate ASTM methods (such as ASTM methods D240, D4294, D6010), or equivalent methods as approved by the Director.

4. 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 emission unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
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 07-420, issued on 7/17/96: A.III.1 through A.III.4. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the byproduct waste fuel usage limitation described in section A.II.3.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all times when a shipment of oil is received which exceeds the 0.4 percent, by weight, sulfur content limitation.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.
4. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.
5. The permittee shall submit to the Ohio EPA Central Office a copy of the annual performance specification test report for the CO and O₂ continuous emission monitoring systems (CEMs). The performance specification test shall be conducted in accordance with the requirements of 40 CFR Part 266, Appendix IX.

IV. Reporting Requirements (continued)

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 07-420, issued on 7/17/96: 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:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures required in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.047 lb/hr of VOC

Applicable Compliance Method:

Compliance shall be demonstrated based upon the stack testing requirements specified in section A.V.2.

1.c Emission Limitation:

0.21 tpy of VOC

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

1.d Emission Limitation:

2.73 lbs/hr of NO_x

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the NO_x emission factor in lb/mmscf of fuel fired, by the maximum quantity of fuel burned per hour, in mmscf. The NO_x emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7.

V. Testing Requirements (continued)

1.e Emission Limitation:

11.96 tpy of NO_x

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

1.f Emission Limitation:

0.18 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the particulate emission factor in lb/mmscf of fuel fired, by the maximum quantity of fuel burned per hour, in mmscf. The particulate emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

1.g Emission Limitation:

0.79 tpy of particulate emissions

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

1.h Emission Limitation:

0.004 lb/hr of CO

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the CO emission factor in lb/mmscf of fuel fired, by the maximum quantity of fuel burned per hour, in mmscf. The CO emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

1.i Emission Limitation:

0.02 tpy of CO

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

V. Testing Requirements (continued)

1.j Emission limitation:

CO emissions shall not exceed 100 ppmv on a dry basis corrected to 7% oxygen as a rolling, hourly average

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 266, Subpart H.

1.k Emission Limitation:

3.66 lbs/hr of SO₂

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the SO₂ emission factor in lb/1000 gallon of fuel fired, by the maximum quantity of fuel burned per hour, in gallons. The SO₂ emission factor shall be obtained from AP-42, Volume 1, 5th Edition, Chapter 1, Section 1.3, Table 1.3-1, dated September, 1998 and the sulfur content of the fuel.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6.

1.l Emission Limitation:

16.05 tpy of SO₂

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

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 3 months after issuance of the permit and quarterly thereafter.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for VOC.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for VOC, Method 25 or 25A of 40 CFR Part 60, Appendix A, as appropriate. 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 and using the maximum allowed byproduct fuel burning rate, unless otherwise specified or approved by the Portsmouth local air agency.

V. Testing Requirements (continued)

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 #07-420, issued on 7/17/96: 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 operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Dowtherm Boiler R-2 (B015)
Activity Description: Dowtherm Boiler R-2 (StyronTM)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
9 mmBtu/hr natural gas fired boiler	OAC rule 3745-31-05(A)(3) (PTI 07-299)	0.79 tpy of particulate emissions 0.005 lb/hr of sulfur dioxide (SO ₂) 0.023 tpy of SO ₂ 0.87 lb/hr of nitrogen oxides (NO _x) 3.83 tpy of NO _x
	OAC rule 3745-17-07(A)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07, 3745-17-10, 3745-18-06, 3745-21-08 and 3745-23-06. 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)	0.020 pound of particulates per mmBtu of actual heat input
	OAC rule 3745-18-06(B)	See A.I.2.a below.
	OAC rule 3745-21-08(B)	See A.I.2.b below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

- 2.a Fuel burning equipment which have heat input capacities equal to or less than 10 mmBtu/hr rated capacity are exempt from the requirements of OAC rule 3745-18-06(D), (F), and (G).

2. Additional Terms and Conditions (continued)

- 2.b** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-299.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.c** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-299.

II. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns fuel other than natural gas, 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 07-299, issued on 6/10/92: 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 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. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.
3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install 07-299, issued on 6/10/92: A.IV.1 and A.IV.2. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitation:

0.020 pound of particulates per mmBtu of actual heat input

Applicable Compliance Method:

Compliance with the lb/mmBtu limitation may be demonstrated by multiplying the maximum hourly gas burning rate of the emissions unit by the particulate emission factor of 1.9 lb/mmscf, and then dividing by the maximum hourly heat input capacity of the emissions unit (9 mmBtu/hr). The particulate emission factor was obtained from AP-42, Volume I, 5th Edition, section 1.4, table 1.4-2, dated July, 1998.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

1.b Emission Limitation:

0.79 tpy of particulate emissions

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

1.c Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures required in OAC rule 3745-17-03(B)(1).

1.d Emission Limitation:

0.005 lb/hr of SO₂

Applicable Compliance Method:

Compliance with the lb/hr limitation may be demonstrated by multiplying the maximum hourly gas burning rate of the emission unit by the SO₂ emission factor of 0.6 lb/million scf. The SO₂ factor was obtained from AP-42, Volume I, 5th Edition, section 1.4, table 1.4-2, dated July, 1998.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6.

1.e Emission Limitation:

0.023 tpy of SO₂

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

V. Testing Requirements (continued)

1.f Emission Limitation:

0.87 lb/hr of NO_x

Applicable Compliance Method:

Compliance with the lb/hr limitation may be demonstrated by multiplying the maximum hourly gas burning rate of the emissions unit by the NO_x emission factor of 50 lb/mm³scf. The NO_x emission factor was obtained from AP-42, Volume I, 5th Edition, section 1.4, table 1.4-1, dated July, 1998.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7.

1.g Emission Limitation:

3.83 tpy of NO_x

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

- 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 07-299, issued on 6/10/92: 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 operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Dowtherm Boiler R-3 (B020)

Activity Description: Dowtherm Boiler R-3 (StyronTM)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
9 mmBtu/hr per hour natural gas, no. 2 fuel oil, and byproduct fired boiler	OAC rule 3745-31-05(A)(3) (PTI 07-420)	0.18 lb/hr of particulate emissions
		0.79 tpy of particulate emissions
		2.73 lbs/hr of nitrogen oxides (NOx)
		11.96 tpy of NOx
		3.66 lbs/hr of sulfur dioxide (SO2)
		16.05 tpy of SO2
		0.047 lb/hr of volatile organic compounds (VOC)
		0.21 tpy of VOC
		0.004 lb/hr of carbon monoxide (CO)
		0.02 tpy of CO
		CO emissions shall not exceed 100 ppmv on a dry basis corrected to 7% oxygen as a rolling, hourly average
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07, 3745-17-10, 3745-18-06, 3745-21-08 and 3745-23-06.
		See A.I.2.a below.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-10(B)(1)	Particulate emissions shall not exceed 0.020 lb/mmBtu of actual heat input.
	OAC rule 3745-18-06(B)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.d below.

2. Additional Terms and Conditions

- 2.a** Compliance with 40 CFR Part 266, Subpart H and sections A.II.1 and A.II.2 below shall satisfy the best available technology requirement for this emissions unit specified in OAC rule 3745-31-05(A)(3).
- 2.b** Fuel burning equipment which have heat input capacities equal to or less than 10 mmBtu/hr rated capacity are exempt from OAC rule 3745-18-06(D), (F), and (G).
- 2.c** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-420.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.d** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-420.

II. Operational Restrictions

- 1. No. 2 fuel oil shall be burned for emergency backup only when natural gas is not available.
- 2. No. 2 fuel oil shall have a sulfur content of less than or equal to 0.4 percent, by weight.
- 3. The amount of fuel burned in this emissions unit shall not exceed 50% / 50% mix of natural gas (or no. 2 fuel oil as emergency backup) and byproduct fuel. This 50% byproduct fuel equates to 228 lbs/hr of byproduct waste fuel.

III. Monitoring and/or Record Keeping Requirements

- 1. The permittee shall maintain daily records of the quantity of each fuel burned in this emissions unit, including the ratio of the mix of byproduct waste fuel to natural gas (or no. 2 fuel oil as emergency backup).

III. Monitoring and/or Record Keeping Requirements (continued)

2. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu).

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as ASTM methods D240, D4294, D6010), or equivalent methods as approved by the Director.

3. The permittee shall maintain records of the total quantity of byproduct fuel employed in this emissions unit, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu).

The permittee shall perform the analyses for sulfur content and heat content on a monthly basis in accordance with the procedures in 40 CFR Part 266, or the appropriate ASTM methods (such as ASTM methods D240, D4294, D6010), or equivalent methods as approved by the Director.

4. 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 emission unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
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 07-420, issued on 7/17/96: A.III.1 through A.III.4. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the byproduct waste fuel usage limitation described in section A.II.3.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all times when a shipment of oil is received which exceeds the 0.4 percent, by weight, sulfur content limitation.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.
4. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.
5. The permittee shall submit to the Ohio EPA Central Office a copy of the annual performance specification test report for the CO and O₂ continuous emission monitoring systems (CEMs). The performance specification test shall be conducted in accordance with the requirements of 40 CFR Part 266, Appendix IX.

IV. Reporting Requirements (continued)

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 07-420, issued on 7/17/96: 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:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures required in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.047 lb/hr of VOC

Applicable Compliance Method:

Compliance shall be demonstrated based upon the stack testing requirements specified in section A.V.2.

1.c Emission Limitation:

0.21 tpy of VOC

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

1.d Emission Limitation:

2.73 lbs/hr of NO_x

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the NO_x emission factor in lb/mmscf of fuel fired, by the maximum quantity of fuel burned per hour, in mmscf. The NO_x emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7.

V. Testing Requirements (continued)

1.e Emission Limitation:

11.96 tpy of NO_x

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

1.f Emission Limitation:

0.18 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the particulate emission factor in lb/mmscf of fuel fired, by the maximum quantity of fuel burned per hour, in mmscf. The particulate emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

1.g Emission Limitation:

0.79 tpy of particulate emissions

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

1.h Emission Limitation:

0.004 lb/hr of CO

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the CO emission factor in lb/mmscf of fuel fired, by the maximum quantity of fuel burned per hour, in mmscf. The CO emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

1.i Emission Limitation:

0.02 tpy of CO

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

V. Testing Requirements (continued)

1.j Emission limitation:

CO emissions shall not exceed 100 ppmv on a dry basis corrected to 7% oxygen as a rolling, hourly average

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 266, Subpart H.

1.k Emission Limitation:

3.66 lbs/hr of SO₂

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the SO₂ emission factor in lb/1000 gallon of fuel fired, by the maximum quantity of fuel burned per hour, in gallons. The SO₂ emission factor shall be obtained from AP-42, Volume 1, 5th Edition, Chapter 1, Section 1.3, Table 1.3-1, dated September, 1998 and the sulfur content of the fuel.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6.

1.l Emission Limitation:

16.05 tpy of SO₂

Applicable Compliance Method:

This limitation was derived by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds/ton; therefore, provided compliance is shown with the hourly emission limitation, compliance will be shown with the annual limitation.

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 3 months after issuance of the permit and quarterly thereafter.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for VOC.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for VOC, Method 25 or 25A of 40 CFR Part 60, Appendix A, as appropriate. 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 and using the maximum allowed byproduct fuel burning rate, unless otherwise specified or approved by the Portsmouth local air agency.

V. Testing Requirements (continued)

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 #07-420, issued on 7/17/96: 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 operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Fugitive Dust-Roads (F001)
Activity Description: Fugitive Dust - Plant Roadways & Parking Areas

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
plant roadways and parking areas	OAC rule 3745-17-08(B)	See A.1.2.a below.
	OAC rule 3745-17-07(B)	See A.1.2.b below.

2. Additional Terms and Conditions

- 2.a Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to this emissions unit.
- 2.b Pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Cold Solvent Cleaner (L001)
Activity Description: Flat Plate Heater Cold Cleaner (H-561)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
500-gallon immersion batch cold cleaning machine H-560	OAC rule 3745-31-05 (PTI 07-452) OAC rule 3745-21-09(O) 40 CFR Part 63, Subpart T	<0.5 tpy of volatile organic compounds (VOC) This rule is equivalent to or less stringent than 40 CFR Part 63, Subpart T. See A.I.2.a below.

2. Additional Terms and Conditions

- 2.a The cold cleaner shall employ a tightly fitting cover that shall be closed at all times except during parts entry and removal, and a water layer at a minimum thickness of 2.5 cm (1 inch) on the surface of the solvent within the cleaning machine.

II. Operational Restrictions

1. The cold cleaner shall be equipped with a device for draining the cleaned parts; and if the solvent has a vapor pressure greater than 0.6 pound per square inch absolute measured at 100 degrees Fahrenheit, the drainage facility shall be constructed internally so that the parts are enclosed under the cover during draining, unless an internal type draining device cannot fit into the cleaning system.
2. The cold cleaner shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:
 - a. provide a permanent, legible, conspicuous label, summarizing the operating requirements;
 - b. store waste solvent in covered containers;
 - c. close the cover whenever parts are not being handled in the cleaner;
 - d. drain the cleaned parts until dripping ceases;
 - e. if used, supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower type spray) at a pressure that does not exceed 10 pounds per square inch gauge; and
 - f. clean only materials that are neither porous nor absorbent.

II. Operational Restrictions (continued)

3. The cold cleaner shall be operated with a cover, and if the solvent has a vapor pressure greater than 0.3 pound per square inch absolute, measured at 100 degrees Fahrenheit, or if the solvent is heated or agitated, the cover shall be designed and constructed so that it can be easily operated with one hand.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records of the items cleaned, the types of solvents employed and the vapor pressure of each solvent (pounds per square inch absolute) measured at 100 degrees Fahrenheit. The records shall be kept in a readily accessible location for at least 5 years and shall be made available to the Director upon verbal or written request.
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 07-452, issued on 2/4/98: 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 a compliance report no later than 150 days after December 2, 1997. This report shall include the following information:
 - a. the name and address of the permittee;
 - b. the address (i.e., physical location) of the solvent cleaning machine;
 - c. a statement, signed by the permittee of the solvent cleaning machine for which the report is being submitted is in compliance with 40 CFR Part 63; and
 - d. the compliance approach for the solvent cleaning machine.
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 07-452, issued on 2/4/98: 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:

1.a Emission Limitation:

<0.5 tpy of VOC

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum surface area cleaned per year in the cold cleaner by 0.0013 feet (estimates a layer approximately 1/64th of an inch of solvent remaining on part), and by the density of the solvent (81.12 pounds/cubic feet for methylene chloride), and then dividing by 2000 lbs/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 07-452, issued on 2/4/98: 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.

Facility Name: **The Dow Chemical Company - Hanging Rock**
Facility ID: **07-44-00-0029**
Emissions Unit: **Cold Solvent Cleaner (L001)**

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Cold Solvent Cleaner (L002)
Activity Description: Flat Plate Heater Cold Cleaner(H-562)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
500-gallon immersion batch cold cleaning machine H-560	OAC rule 3745-31-05 (PTI 07-452) OAC rule 3745-21-09(O) 40 CFR Part 63, Subpart T	<0.5 tpy of volatile organic compounds (VOC) This rule is equivalent to or less stringent than 40 CFR Part 63, Subpart T. See A.I.2.a below.

2. Additional Terms and Conditions

- 2.a The cold cleaner shall employ a tightly fitting cover that shall be closed at all times except during parts entry and removal, and a water layer at a minimum thickness of 2.5 cm (1 inch) on the surface of the solvent within the cleaning machine.

II. Operational Restrictions

1. The cold cleaner shall be equipped with a device for draining the cleaned parts; and if the solvent has a vapor pressure greater than 0.6 pound per square inch absolute measured at 100 degrees Fahrenheit, the drainage facility shall be constructed internally so that the parts are enclosed under the cover during draining, unless an internal type draining device cannot fit into the cleaning system.
2. The cold cleaner shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:
 - a. provide a permanent, legible, conspicuous label, summarizing the operating requirements;
 - b. store waste solvent in covered containers;
 - c. close the cover whenever parts are not being handled in the cleaner;
 - d. drain the cleaned parts until dripping ceases;
 - e. if used, supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower type spray) at a pressure that does not exceed 10 pounds per square inch gauge; and
 - f. clean only materials that are neither porous nor absorbent.

II. Operational Restrictions (continued)

3. The cold cleaner shall be operated with a cover, and if the solvent has a vapor pressure greater than 0.3 pound per square inch absolute, measured at 100 degrees Fahrenheit, or if the solvent is heated or agitated, the cover shall be designed and constructed so that it can be easily operated with one hand.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records of the items cleaned, the types of solvents employed and the vapor pressure of each solvent (pounds per square inch absolute) measured at 100 degrees Fahrenheit. The records shall be kept in a readily accessible location for at least 5 years and shall be made available to the Director upon verbal or written request.
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 07-452, issued on 2/4/98: 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 a compliance report no later than 150 days after December 2, 1997. This report shall include the following information:
 - a. the name and address of the permittee;
 - b. the address (i.e., physical location) of the solvent cleaning machine;
 - c. a statement, signed by the permittee of the solvent cleaning machine for which the report is being submitted is in compliance with 40 CFR Part 63; and
 - d. the compliance approach for the solvent cleaning machine.
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 07-452, issued on 2/4/98: 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:

1.a Emission Limitation:

<0.5 tpy of VOC

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum surface area cleaned per year in the cold cleaner by 0.0013 feet (estimates a layer approximately 1/64th of an inch of solvent remaining on part), and by the density of the solvent (81.12 pounds/cubic feet for methylene chloride), and then dividing by 2000 lbs/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 07-452, issued on 2/4/98: 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.

Facility Name: **The Dow Chemical Company - Hanging Rock**
Facility ID: **07-44-00-0029**
Emissions Unit: **Cold Solvent Cleaner (L002)**

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Dow Polystyrene Polymerization Process - Train #1 (P002)

Activity Description: Process which produces Polystyrene (StyronTM)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
polystyrene process train #1 vented to Dowtherm boilers R-1 and R-3	OAC rule 3745-31-05(A)(3) (PTI 07-00479)	0.06 lb/hr of volatile organic compounds (VOC) 0.26 tpy of VOC
	OAC rule 3745-21-09(DD)	See A.I.2.d and A.I.2.e below.
	40 CFR Part 63, Subpart JJJ	See A.I.2.c below. Polystyrene Resin Thermoplastic Product Process Unit
	OAC rule 3745-21-09(CC)	See A.I.2.b below. Additional requirements are specified in Part II, sections A.4 through A.52 - Specific Facility Terms and Conditions. See A.I.2.a below.

2. Additional Terms and Conditions

- 2.a** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.b** The permittee of an affected emissions unit producing polystyrene resin using a continuous process shall comply with the requirements of this rule by reducing emissions from all process vents, as defined in 40 CFR 63.1312, by 98 weight percent or to a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent. If the permittee elects to comply with the 20 ppmv standard, the concentration shall include a correction to 3 percent oxygen only when supplemental combustion air is used to combust the emissions. Compliance shall be based on either organic HAP or TOC.
- 2.c** The leak detection and repair (LDAR) program specified by this applicable rule is equivalent to or less stringent than the LDAR program specified by 40 CFR Part 63, Subpart JJJ.

2. Additional Terms and Conditions (continued)

- 2.d** Compliance with 40 CFR Part 63, Subpart JJJ shall satisfy the best available technology (BAT) requirement for this emissions unit.
- 2.e** Process emissions from this emissions unit shall be vented to the Dowtherm boilers R-1 (B010) and R-3 (B020). There shall be no increase in the allowable emissions from the Dowtherm boilers. The Dowtherm boilers R-1 and R-3 shall also comply with the applicable requirements of 40 CFR Part 266, Subpart H.

II. Operational Restrictions

- 1. If a boiler or heater is used to comply with the percent reduction requirement or concentration limit specified in A.I.2.b, then the vent stream shall be introduced into the flame zone of such a device.

III. Monitoring and/or Record Keeping Requirements

- 1. The monitoring and record keeping provisions of the LDAR program for this emissions unit are specified in Part II, sections A.4 through A.52.
- 2. The permittee shall maintain daily records, in pounds, of the amount of each raw material used in this process unit and the hourly VOC emissions from this emissions unit.
- 3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install 07-00479, issued on 5/3/00: A.III.1 and A.III.2. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

IV. Reporting Requirements

- 1. The reporting provisions of the LDAR program for this emissions unit are specified in Part II, sections A.4 through A.52.
- 2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install 07-00479, issued on 5/3/00: A.IV.1. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

V. Testing Requirements

- 1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

- 1.a** Emission Limitation:

0.06 lb/hr of VOC

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the emissions tracking program, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This program has been defined by The Dow Chemical Corporation as the "ESOP-25 Styron-Magnum Air Emission Calculator" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 of this permit and shall be based on emission factors from Compilation of Air Pollutant Emission Factors AP-42, Fifth Edition, Volume I, Chapters 6 and 7 and/or other appropriate factors to calculate emissions rates from this emissions unit. This program shall be available to an OEPA representative at any time during normal business hours.

V. Testing Requirements (continued)

1.b Emission Limitation:

0.26 tpy of VOC

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8760 hours per year, and then dividing by 2000 lbs/ton.

1.c Emission Limitation:

reduce emissions by 98 weight percent or to a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent

Applicable Compliance Method:

Compliance shall be demonstrated based upon compliance with 40 CFR Part 266, Subpart H for the Dowtherm boilers R-1 and R-3 (B010 and B020).

- 2.** Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install 07-00479, issued on 5/3/00: A.V.1. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Plant - line #1 (P003)
Activity Description: Performance Foams Manufacturing Process - Line 1

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
performance foams plant- line #1 controlled by a thermal oxidizer	OAC rule 3745-31-05(A)(3) (PTI 07-00494)	Controlled volatile organic compound (VOC) emissions from this emissions unit shall not exceed 4.4 lbs/hr.
		Allowable emissions from the thermal oxidizer (for the emissions units specified in section A.I.2.b) shall not exceed the following:
		2.75 lbs/hr of particulate emissions 12 tpy of particulate emissions
		0.12 lb/hr of sulfur dioxide (SO ₂) 0.53 tpy of SO ₂
		6.0 lbs/hr of nitrogen oxides (NO _x) 26.3 tpy of NO _x
		40.2 lbs/hr of volatile organic compounds (VOC)
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
		See A.I.2.a through A.I.2.e and A.I.2.g below.
	OAC rule 3745-31-05(D) SYNTHETIC MINOR TO AVOID PSD (THIS LIMITATION UPON P003 AND P022 WAS PART OF AN EARLIER PTI TO AVOID PSD)	15.9 tons of VOC per rolling, 365-day period for emissions units P003 and P022, combined
	OAC rule 3745-17-07(A)	See A.I.2.f below.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-11(B)	See A.I.2.f below.

2. Additional Terms and Conditions

- 2.a VOC emissions from this emissions unit shall not exceed 15.9 tpy, based upon a rolling, 365-day summation of the daily emissions.
- 2.b The following emissions units are vented to the regenerative thermal oxidizer (RTO): P003 (performance foams line #1), P022 (performance foams line #2), P023 (performance foams recycle line), P014 (performance foams line #3), P017 (performance foams primary curing warehouse #1) and P018 (performance foams primary curing warehouse #2).
- 2.c VOC emissions vented to the RTO shall be controlled by at least 98% at maximum operating capacity.
- 2.d The shutdown of the RTO shall be accompanied by the shutdown of all the performance foam process units which are vented to it.
- 2.e There shall be no visible emissions in excess of 10% opacity, as a 6-minute average, during any 60-minute observation period.
- 2.f The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.g The 4.4 lbs/hr VOC limitation for this emissions unit and the 40.2 lbs/hr VOC limitation for emissions units P003, P014, P017, P018, P022, and P023, combined, were established to reflect the hourly potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

II. Operational Restrictions

- 1. Combined blowing agent (VOC) usage for emissions unit P003 and P022 shall not exceed 2540 tpy, based upon a rolling, 365-day summation of the daily usages.
- 2. A minimum temperature of 1425 degrees Fahrenheit shall be maintained in the combustion zone of the thermal oxidizer.
- 3. The thermal oxidizer, including any associated equipment and piping, shall be designed, operated, and maintained so as to prevent the emissions of objectionable odors.

III. Monitoring and/or Record Keeping Requirements

- 1. The facility shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emission unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. all 3-hr blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was less than 1425 degrees Fahrenheit; and
- b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall maintain daily records of the following information for P003 and P022:
 - a. the daily usage of blowing agent (VOC), in lbs;
 - b. the total combined rolling, 365-day total of the tons of blowing agent (VOC) employed;
 - c. the product type groups produced;
 - d. the operating hours of each product group produced;
 - e. the product type die loss factors;
 - f. the hole punching factor;
 - g. the daily VOC vent emissions;
 - h. the total combined VOC (blowing agent) emissions, in tons, calculated on a rolling, 365-day average;
 - i. the date and time of each thermal oxidizer shutdown; and
 - j. the duration of time for each thermal oxidizer shutdown.

The daily vent emissions for emissions units P003 and P022 are calculated by multiplying the amount of blowing agent released in each process by the destruction efficiency of the control device. The blowing agent released in the process is calculated based on the quantity of product produced on each line (P003 and P022) per day and the amount of blowing agent on each product.

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emission from the RTO stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 5/30/2002: A.III.1 and A.III.3. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day combined emission and usage limitations for VOC (blowing agent) for P003 and P022 .

IV. Reporting Requirements (continued)

2. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time during which the thermal oxidizer combustion zone temperature does not comply with the temperature limitation specified in section A.III.1. Each report shall be submitted within 30 days after the deviation occurs.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.
5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 5/30/2002: A.IV.1 through A.IV.4. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:

2.75 lbs/hr of particulates from the thermal oxidizer
0.12 lb/hr of SO₂ from the thermal oxidizer
6.0 lbs/hr of NO_x from the thermal oxidizer
40.2 lbs/hr of VOC from the thermal oxidizer

VOC emissions vented to the thermal oxidizer shall be controlled by at least 98% at maximum operating capacity.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the appropriate Test Methods as described in section A.V.2.

1.b Emission Limitations:

12 tpy of particulates from the thermal oxidizer
0.53 tpy of SO₂ from the thermal oxidizer
26.3 tpy of NO_x from the thermal oxidizer

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the appropriate hourly allowable emission limitation by the actual annual hours of operation, and then dividing by 2000 lbs/hr.

V. Testing Requirements (continued)

1.c Emission Limitation:

VOC emissions from this emissions unit shall not exceed 4.4 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emissions unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 25 or 25A.

1.d Emission Limitation:

VOC vent emissions from this emissions unit shall not exceed 15.9 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping specified in section A.III.2.

1.e Emission Limitation:

15.9 tons of VOC per rolling, 365-day period for emissions units P003 and P022, combined

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping as described in section A.III.2 using the summation of the emissions for emissions units P003 and P022.

1.f Emission Limitation:

There shall be no visible emissions in excess of 10% opacity as a 6-minute average in any 60-minute observation period.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

V. Testing Requirements (continued)

2. The following emissions units vent to the RTO: P003 (performance foams line #1), P022 (performance foams line #2), P014 (performance foams line #3), P023 (performance foams recycle line), P017 (curing warehouse), and P018 (curing warehouse).

The permittee shall conduct, or have conducted, emission testing for the RTO in accordance with the following requirements:

- a. The emission testing shall be conducted within 3 months after issuance of this permit and semi-annually thereafter.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates, SO₂, NO_x, and VOC, and the control efficiency limitation for VOC.
- c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for SO₂, Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A; for NO_x, Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A; and for VOC, Methods 1 through 4 and Method 25A of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the control efficiency limitation for VOC is specified below. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while all the above-mentioned emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Portsmouth local air agency.
- e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(C). The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth local air agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth local air agency.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 5/30/02: A.V.1 and A.V.2. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

Facility Name: **The Dow Chemical Company - Hanging Rock**
Facility ID: **07-44-00-0029**
Emissions Unit: **Performance Foams Plant - line #1 (P003)**

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
performance foams plant- line #1 controlled by a thermal oxidizer		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (PTI 07-00494) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isopentane
 TLV(ug/m3): 177055
 Maximum Hourly Emission Rate (lb/hr): 40.2*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 224.64
 MAGLC (ug/m3): 42156

* This was modeled for emissions units P003, P022, P023, P014, P017, and P018, combined.

III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

1. The permit to install was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The OEPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by the emission unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Isopentane

TLV(ug/m3): 177055

Maximum Hourly Emission Rate (lb/hr): 40.2*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 224.64

MAGLC (ug/m3): 42156

* This was modeled for emissions units P003, P022, P023, P014, P017, P018 combined.

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - 2.a changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;
 - 2.b changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - 2.c physical changes to the emissions unit or its exhaust parameters (eg., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy."

 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Line 1 M/L Plstcs Pro (P009)

Activity Description: Raw materials are processed to form Expanded Polystyrene Foam

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
polystyrene foam plant - mainline and product storage warehouses	OAC rule 3745-31-05(A)(3) (PTI 07-390)	7.9 lbs/hr of volatile organic compounds (VOC) (ethyl chloride)
		33 tpy of VOC (ethyl chloride) as a rolling, 12-month summation
		216 tpy of VOC (ethyl chloride) fugitive emissions as a rolling, 12-month summation
		5.5 lbs/hr of HCFC 142b
		20.3 tpy of HCFC 142b as a rolling, 12-month summation
		11 tpy HCFC 142b fugitive emissions as a rolling, 12-month summation
		4.8 lbs/hr of HFC 152a
		7.7 tpy HFC 152a as a rolling, 12-month summation

2. Additional Terms and Conditions

- 2.a OAC rule 3745-21-07 does not apply to this emissions unit because none of the materials used in this process is a liquid organic material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records consisting of the following:
 - a. the daily usage of each blowing agent [HCFC 142b, HFC 152a, and VOC (ethyl chloride)], in pounds;
 - b. the daily operating hours of each product group produced;
 - c. the product type die loss factors;
 - d. the product type conversion loss factor;
 - e. the product type processing losses;
 - f. the product type storage factor;
 - g. the rolling, 12-month total of the tons of each blowing agent [HCFC 142b, HFC 152a, and VOC (ethyl chloride)] employed;
 - h. the monthly HCFC 142b, HFC 152a, and VOC (ethyl chloride) vent emissions (calculated by multiplying the total amount of blowing agent used in the process by the die loss factor), based on a rolling, 12-month summation; and
 - i. the monthly HCFC 142b, HFC 152a, and VOC (ethyl chloride) fugitive emissions (calculated by subtracting the die losses, processing losses, and conversion losses from the total amount of blowing agent used in the process, and then multiplying by the storage factor), based on a rolling, 12-month summation.
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 # 07-390, modified on 7/8/98: A.III.1. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
 - a. an identification of each day during which the average hourly VOC emissions exceeded 7.9 lbs/hr, and the actual average hourly VOC emissions for each such day;
 - b. an identification of each day during which the average hourly HCFC 142b emissions exceeded 5.5 lbs/hr, and the actual average hourly HCFC 142b emissions for each such day; and
 - c. an identification of each day during which the average hourly HFC 152a emissions exceeded 4.8 lbs/hr, and the actual average hourly HFC 152a emissions for each such day.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitations for HCFC 142b, HFC 152a, and VOC (ethyl chloride).
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 #07-390, modified on 7/8/98: A.IV.1 through A.IV.3. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

- 1.a Emission Limitations:

7.9 lbs/hr of VOC (ethyl chloride)
5.5 lbs/hr of HCFC 142b
4.8 lbs/hr of HFC 152a

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the emissions tracking program, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This program has been defined by The Dow Chemical Corporation as the "Foam Blowing Agent Emission Model" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.1 above and/or other appropriate factors to calculate emissions rates from this emissions unit. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon stack testing using the procedures specified in 40 CFR Part 60, Appendix A.

- 1.b Emission Limitations:

33 tpy of VOC (ethyl chloride) as a rolling, 12-month summation
216 tpy of VOC (ethyl chloride) fugitive emissions as a rolling, 12-month summation
20.3 tpy of HCFC 142b as a rolling, 12-month summation
11 tpy HCFC 142b fugitive emissions as a rolling, 12-month summation
7.7 tpy HFC 152a as a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping requirements described in section A.III.1 of these terms and conditions. The rolling tpy limit shall be demonstrated by the summation of the emissions for the current month and the previous 11 months.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-390, modified on 7/8/98: 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 operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Dow Polystyrene Polymerization Process - Train #2 (P010)

Activity Description: Process which produces polystyrene copolymers (Styron™)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
polystyrene process train #2 vented to the dowtherm boilers R-1 and R-3	OAC rule 3745-31-05(A)(3) (PTI 07-446)	no visible particulate emissions from the rework filter receiver ME-710, transfer system, and screening operation
	OAC rule 3745-21-09(DD)	See A.I.2.d and A.I.2.e below.
	40 CFR Part 63, Subpart JJJ	See A.I.2.c below. Styrene Acrylonitrile Resin Thermoplastic Product Process Unit
	OAC rule 3745-21-09(CC)	See A.I.2.b below. Additional requirements are specified in Part II, sections A.4 through A.52 - Specific Facility Terms and Conditions. See A.I.2.a below.

2. Additional Terms and Conditions

- 2.a The permittee shall not discharge into the ambient air any volatile organic compounds (VOC) from the material recovery section in excess of 0.12 pound of VOC per 1000 pounds of product produced.
- 2.b The permittee of an affected emissions unit producing polystyrene resin using a continuous process shall comply with the requirements of this rule by reducing emissions from all process vents, as defined in 40 CFR 63.1312, by 98 weight percent or to a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent. If the permittee elects to comply with the 20 ppmv standard, the concentration shall include a correction to 3 percent oxygen only when supplemental combustion air is used to combust the emissions. Compliance shall be based on either organic HAP or TOC.
- 2.c The leak detection and repair (LDAR) program specified by this applicable rule is equivalent to or less stringent than the LDAR program specified by 40 CFR Part 63, Subpart JJJ.

2. Additional Terms and Conditions (continued)

- 2.d** Compliance with 40 CFR Part 63, Subpart JJJ shall satisfy the best available technology (BAT) requirement for this emissions unit.
- 2.e** Process emissions from this emissions unit shall be vented to the Dowtherm boilers R-1 (B010) and R-3 (B020). There shall be no increase in the allowable emissions from the Dowtherm boilers. The Dowtherm boilers R-1 and R-3 shall also comply with the applicable requirements of 40 CFR Part 266, Subpart H.

II. Operational Restrictions

- 1. If a boiler or heater is used to comply with the percent reduction requirement or concentration limit specified in A.I.2.b, then the vent stream shall be introduced into the flame zone of such a device.

III. Monitoring and/or Record Keeping Requirements

- 1. The monitoring and record keeping provisions of the LDAR program for this emissions unit are specified in Part II, sections A.4 through A.52.
- 2. The permittee shall maintain daily records, in pounds, of the amount of each raw material used in this process unit and the hourly VOC emissions from this emissions unit.
- 3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-446, issued on 10/1/97: A.III.1 and A.III.2. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

IV. Reporting Requirements

- 1. The reporting provisions of the LDAR program for this emissions unit are specified in Part II, sections A.4 through A.52.
- 2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install 07-00479, issued on 5/3/00: A.IV.1. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

V. Testing Requirements

- 1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

- 1.a** Emission Limitation:

The permittee shall not discharge into the ambient air any volatile organic compounds (VOC) from the material recovery section in excess of 0.12 pound of VOC per 1000 pounds of product produced.

Applicable Compliance Method:

Compliance shall be demonstrated based on the results of the most recent compliance test conducted on the Dowtherm heaters (B010 and B020).

V. Testing Requirements (continued)

1.b Emission Limitation:

Reduce emissions by 98 weight percent or to a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent.

Applicable Compliance Method:

Compliance shall be demonstrated based on compliance with 40 CFR Part 266, Subpart H for the Dowtherm boilers R-1 and R-3 (B010 and B020).

1.c Emission Limitation:

no visible particulate emissions from the rework filter receiver ME-710, transfer system, and screening operation

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22.

- 2.** Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-446, issued on 10/1/97: A.V.1. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Plant - line #3 (P014)
Activity Description: Performance Foams Manufacturing Process - Line 3

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
performance foams plant- line #3 controlled by a thermal oxidizer	OAC rule 3745-31-05(A)(3) (PTI 07-00494)	Controlled volatile organic compounds (VOC) emissions from this emissions unit shall not exceed 3.3 lbs/hr.
		Allowable emissions from the thermal oxidizer (for the emissions units specified in section A.I.2.b) shall not exceed the following:
		2.75 lbs/hr of particulate emissions 12 tpy of particulate emissions
		0.12 lb/hr of sulfur dioxide (SO ₂) 0.53 tpy of SO ₂
		6.0 lbs/hr of nitrogen oxides (NO _x) 26.3 tpy of NO _x
		40.2 lbs/hr of volatile organic compounds (VOC)
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
		See A.I.2.a through A.I.2.e and A.I.2.g below.
	OAC rule 3745-31-05(D) SYNTHETIC MINOR TO AVOID PSD	23.2 tons of VOC per rolling, 365-day period for emissions units P003, P022, P014, and P023, combined
	OAC rule 3745-17-07(A)	See A.I.2.f below.
	OAC rule 3745-17-11(B)	See A.I.2.f below.

2. Additional Terms and Conditions

- 2.a** VOC emissions from this emissions unit shall not exceed 14.5 tpy, based upon a rolling, 365-day summation of the daily emissions.
- 2.b** The following emissions units are vented to the regenerative thermal oxidizer (RTO): P003 (performance foams line #1), P022 (performance foams line #2), P023 (performance foams recycle line), P014 (performance foams line #3), P017 (performance foams primary curing warehouse #1) and P018 (performance foams primary curing warehouse #2).
- 2.c** VOC emissions vented to the RTO shall be controlled by at least 98% at maximum operating capacity.
- 2.d** The shutdown of the RTO shall be accompanied by the shutdown of all the performance foam process units which are vented to it.
- 2.e** There shall be no visible emissions in excess of 10% opacity, as a 6-minute average, during any 60-minute observation period.
- 2.f** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.g** The 3.3 lbs/hr VOC limitation for this emissions unit and the 40.2 lbs/hr VOC limitation for emissions units P003, P014, P017, P018, P022, and P023, combined, were established to reflect the hourly potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

II. Operational Restrictions

- 1.** Combined blowing agent (VOC) usage for emissions unit P003, P022, and P014 shall not exceed 3540 tpy, based upon a rolling, 365-day summation of the daily usage.
- 2.** A minimum temperature of 1425 degrees Fahrenheit shall be maintained in the combustion zone of the thermal oxidizer.
- 3.** The thermal oxidizer, including any associated equipment and piping, shall be designed, operated, and maintained so as to prevent the emissions of objectionable odors.

III. Monitoring and/or Record Keeping Requirements

- 1.** The facility shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emission unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a.** all 3-hr blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was less than 1425 degrees Fahrenheit; and
- b.** a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emission unit is in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall maintain daily records of the following information for P003, P014, and P022:
 - a. the daily usage of blowing agent (VOC), in lbs;
 - b. the total combined rolling, 365-day total of the tons of blowing agent (VOC) employed;
 - c. the product type groups produced;
 - d. the operating hours of each product group produced;
 - e. the product type die loss factors;
 - f. the hole punching factor;
 - g. the daily VOC vent emissions;
 - h. the total combined VOC (blowing agent) emissions, in tons, calculated on a rolling, 365-day average;
 - i. the date and time of each thermal oxidizer shutdown; and
 - j. the duration of time for each thermal oxidizer shutdown.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emission from the RTO stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 5/30/02: A.III.1 and A.III.3. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day combined emission and usage limitations for blowing agent (VOC) for P003, P014 and P022.
2. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time during which the thermal oxidizer combustion zone temperature does not comply with the temperature limitation specified in section A.III.1. Each report shall be submitted within 30 days after the deviation occurs.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

IV. Reporting Requirements (continued)

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.
5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 5/30/02: A.IV.1 through A.IV.4. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitations:

2.75 lbs/hr of particulates from the thermal oxidizer
0.12 lb/hr of SO₂ from the thermal oxidizer
6.0 lbs/hr of NO_x from the thermal oxidizer
40.2 lbs/hr of VOC from the thermal oxidizer

VOC emissions vented to the thermal oxidizer shall be controlled by at least 98% at maximum operating capacity.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the appropriate Test Methods as described in section A.V.2.

- 1.b Emission Limitations:

12 tpy of particulates from the thermal oxidizer
0.53 tpy of SO₂ from the thermal oxidizer
26.3 tpy of NO_x from the thermal oxidizer

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the appropriate hourly allowable emission limitation by the actual annual hours of operation, and then dividing by 2000 lbs/hr.

V. Testing Requirements (continued)

1.c Emission Limitation:

VOC emissions from this emissions unit shall not exceed 3.3 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emission Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafom Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 25 or 25A.

1.d Emission Limitation:

VOC vent emissions from this emissions unit shall not exceed 14.5 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping specified in section A.III.2.

1.e Emission Limitation:

23.2 tons of VOC per rolling, 365-day period for emissions units P003, P022, P014, and P023, combined

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping as described in section A.III.2 using the summation of the emissions for emissions units P003, P022, P014, and P023.

1.f Emission Limitation:

There shall be no visible emissions in excess of 10% opacity as a 6-minute average in any 60-minute observation period.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

V. Testing Requirements (continued)

2. The following emissions units vent to the RTO: P003 (performance foams line #1), P022 (performance foams line #2), P014 (performance foams line #3), P023 (performance foams recycle line), P017 (curing warehouse), and P018 (curing warehouse).

The permittee shall conduct, or have conducted, emission testing for the RTO in accordance with the following requirements:

- a. The emission testing shall be conducted within 3 months after issuance of this permit and semi-annually thereafter.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates, SO₂, NO_x, and VOC, and the control efficiency limitation for VOC.
- c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for SO₂, Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A; for NO_x, Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A; and for VOC, Methods 1 through 4 and Method 25A of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the control efficiency limitation for VOC is specified below. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while all the above-mentioned emissions unit are operating at or near their maximum capacities, unless otherwise specified or approved by the Portsmouth local air agency.
- e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(C). The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth local air agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth local air agency.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.V.1 and A.V.2. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

Facility Name: **The Dow Chemical Company - Hanging Rock**
Facility ID: **07-44-00-0029**
Emissions Unit: **Performance Foams Plant - line #3 (P014)**

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
performance foams plant- line #3 controlled by a thermal oxidizer		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (PTI 07-00494) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isopentane
 TLV(ug/m3): 177055
 Maximum Hourly Emission Rate (lb/hr): 40.2*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 224.64
 MAGLC (ug/m3): 42156

* This was modeled for emissions units P003, P022, P023, P014, P017, and P018, combined.

III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Polystyrene Recycle Processing Unit (P015)
Activity Description: Recycles Polystyrene. Lines 1 & 2 Polystyrene Recycling Unit.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>	
polystyrene foam recycle line controlled with a baghouse	OAC rule 3745-31-05(A)(3) (PTI 07-390)	1 lb/hr of particulate emissions	
		4.38 tpy of particulate emissions as a rolling, 12-month summation	
		45.5 lbs/hr of volatile organic compounds (VOC) (ethyl chloride)	
		199.2 tpy of VOC (ethyl chloride) as a rolling, 12-month summation	
		162.8 lbs/hr of HCFC 142b	
		713.2 tpy of HCFC 142b as a rolling, 12-month summation	
		79.2 lbs/hr of HFC 152a	
		249 tpy of HFC 152a as a rolling, 12-month summation	
		OAC rule 3745-17-11(B)	See A.I.2.a below.
		OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

2. Additional Terms and Conditions

- The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

II. Operational Restrictions

- The pressure drop across the baghouse shall be maintained within the range of 1.0 to 5.0 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records consisting of the following:
 - a. daily concentration of HCFC 142b, HFC 152a, and ethyl chloride, used in recycle products for emissions unit P009, in lbs;
 - b. monthly scrap recycled, in lbs;
 - c. daily hours of operation of the emissions unit;
 - d. scrap cure factor;
 - e. monthly HCFC 142b, HFC 152a, and VOC (ethyl chloride) emissions;
 - f. monthly HCFC 142b, 152a, and VOC (ethyl chloride) emissions, in tons, calculated on a rolling, 12-month average; and
 - g. rolling, 12-month total of the tons of HCFC 142b, 152a, and ethyl chloride employed.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.
3. The permittee shall perform daily checks, when the emission unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack for this emissions unit. The presence of 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,
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-390, modified on 7/8/98: A.III.1 through A.III.3. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
 - a. an identification of each day during which the average hourly VOC emissions exceeded 45.5 lbs/hr, and the actual average hourly VOC emissions for each such day;
 - b. an identification of each day during which the average hourly HCFC 142b emissions exceeded 162.8 lbs/hr, and the actual average hourly HCFC 142b emissions for each such day; and
 - c. an identification of each day during which the average hourly HFC 152a emissions exceeded 79.2 lbs/hr, and the actual average hourly HFC 152a emissions for each such day.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitations for HCFC 142b, HFC 152a, and VOC.

IV. Reporting Requirements (continued)

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
4. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.
5. 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 #07-390, modified on 7/8/98: A.IV.1 through A.IV.4. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures required in OAC rule 3745-17-03(B)(1).

1.b Emission Limitations:

45.5 lbs/hr of VOC (ethyl chloride)

162.8 lbs/hr of HCFC 142b

79.2 lbs/hr of HFC 152a

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the emissions tracking program, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This program has been defined by The Dow Chemical Corporation as the "Foam Blowing Agent Emission Model" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.1 above and/or other appropriate factors to calculate emissions rates from this emissions unit. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon stack testing using the procedures specified in 40 CFR Part 60, Appendix A.

1.c Emission Limitation:

1 lb/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the stack testing procedures specified in section A.V.2.

V. Testing Requirements (continued)

1.d Emission Limitation:

4.38 tpy of particulate emissions as a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly particulate emission limitation by the actual annual hours of operation, and then dividing by 2000 lbs/ton.

1.e Emission Limitations:

199.2 tpy of VOC (ethyl chloride) as a rolling, 12-month summation

713.2 tpy of HCFC 142b as a rolling, 12-month summation

249 tpy of HFC 152a as a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping requirements described in section A.III.1 of these terms and conditions. The rolling TPY limit shall be demonstrated by the summation of the current month emissions and the previous 11 month emissions.

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 3 months after issuance of the permit and within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: 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.

V. Testing Requirements (continued)

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 #07-390, modified on 7/8/98: 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 operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Primary Curing Warehouse #1 (P017)
Activity Description: Performance Foams Primary Curing Warehouse #1, controlled by Thermal Oxidizer

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
performance foams primary curing warehouse #1 controlled by a thermal oxidizer	OAC rule 3745-31-05(A)(3) (PTI 07-00494)	Controlled volatile organic compounds (VOC) emissions shall not exceed 8.1 lbs/hr.
		Allowable emissions from the thermal oxidizer (for the emissions units specified in section A.I.2.b) shall not exceed the following:
		2.75 lbs/hr of particulate emissions 12 tpy of particulate emissions
		0.12 lb/hr of sulfur dioxide (SO ₂) 0.53 tpy of SO ₂
		6.0 lbs/hr of nitrogen oxides (NO _x) 26.3 tpy of NO _x
		40.2 lbs/hr of volatile organic compounds (VOC)
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
		See A.I.2.a through A.I.2.d, A.I.2.f, and A.I.2.g below.
	OAC rule 3745-31-05(D) SYNTHETIC MINOR TO AVOID PSD	See A.I.2.a below.
	OAC rule 3745-17-07(A)	See A.I.2.e below.
	OAC rule 3745-17-11(B)	See A.I.2.e below.

2. Additional Terms and Conditions

- 2.a** VOC emissions from this emissions unit shall not exceed 14.0 tpy, based upon a rolling, 365-day summation of the daily emissions.
- 2.b** The following emissions units are vented to the regenerative thermal oxidizer (RTO): P003 (performance foams line #1), P022 (performance foams line #2), P023 (performance foams recycle line), P014 (performance foams line #3), P017 (performance foams primary curing warehouse #1) and P018 (performance foams primary curing warehouse #2).
- 2.c** VOC emissions vented to the RTO shall be controlled by at least 98% at maximum operating capacity.
- 2.d** There shall be no visible emissions in excess of 10% opacity, as a 6-minute average, during any 60-minute observation period.
- 2.e** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.f** The 8.1 lbs/hr VOC limitation for this emissions unit and the 40.2 lbs/hr VOC limitation for emissions units P003, P014, P017, P018, P022, and P023, combined, were established to reflect the hourly potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.
- 2.g** Combined VOC emissions from performance foams primary curing warehouse #1 (P017) and #2 (P018) shall not exceed 16,000 lbs/day when the thermal oxidizer is shutdown.

II. Operational Restrictions

- 1.** The blowing agent (VOC) usage restriction on the performance foams lines (P003, P022, and P014) results in restricted annual emissions from this emissions unit.
- 2.** A minimum temperature of 1425 degrees Fahrenheit shall be maintained in the combustion zone of the thermal oxidizer.
- 3.** The thermal oxidizer, including any associated equipment and piping, shall be designed, operated, and maintained so as to prevent the emissions of objectionable odors.

III. Monitoring and/or Record Keeping Requirements

- 1.** The facility shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emission unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a.** all 3-hr blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was less than 1425 degrees Fahrenheit; and
- b.** a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emission unit is in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall maintain daily records of the following information:
 - a. the curing warehouse factor;
 - b. the curing warehouse inventory;
 - c. the number of hours each product group is stored in the curing warehouse;
 - d. the daily VOC vent emissions for each curing warehouse;
 - e. the VOC emissions, in tons, calculated on a rolling, 365-day average from each curing warehouse;
 - f. the date and time of each thermal oxidizer shutdown;
 - g. the duration of time for each thermal oxidizer shutdown;
 - h. the daily curing warehouse emissions when the thermal oxidizer is shutdown; and
 - i. the rolling, 365-day total of the tons of blowing agent (VOC) employed for all performance foams process lines (P003, P022, and P014) calculated each day.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emission from the RTO stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 05/30/02: A.III.1 and A.III.3. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day VOC emission limitation.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all blocks of time during which the thermal oxidizer combustion zone temperature does not comply with the temperature limitation specified in section A.III.1.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

IV. Reporting Requirements (continued)

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.
5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.IV.1 through A.IV.4. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitations:

2.75 lbs/hr of particulates from the thermal oxidizer
0.12 lb/hr of SO₂ from the thermal oxidizer
6.0 lbs/hr of NO_x from the thermal oxidizer
40.2 lbs/hr of VOC from the thermal oxidizer

VOC emissions vented to the thermal oxidizer shall be controlled by at least 98% at maximum operating capacity.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the appropriate Test Methods as described in section A.V.2.

- 1.b Emission Limitations:

12 tpy of particulates from the thermal oxidizer
0.53 tpy of SO₂ from the thermal oxidizer
26.3 tpy of NO_x from the thermal oxidizer

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the appropriate hourly allowable emission limitation by the actual annual hours of operation, and then dividing by 2000 lbs/hr.

V. Testing Requirements (continued)

1.c Emission Limitation:

VOC emissions from this emissions unit shall not exceed 8.1 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 25 or 25A.

1.d Emission Limitation:

VOC emissions from this emissions unit shall not exceed 14.0 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping specified in section A.III.2.

1.e Emission Limitation:

Combined VOC emissions from performance foams primary curing warehouse #1 (P017) and #2 (P018) shall not exceed 16,000 lbs/day when the thermal oxidizer is shutdown.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

1.f Emission Limitation:

There shall be no visible emissions in excess of 10% opacity as a 6-minute average in any 60-minute observation period.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

V. Testing Requirements (continued)

2. The following emissions units vent to the RTO: P003 (performance foams line #1), P022 (performance foams line #2), P014 (performance foams line #3), P023 (performance foams recycle line), P017 (curing warehouse), and P018 (curing warehouse).

The permittee shall conduct, or have conducted, emission testing for the RTO in accordance with the following requirements:

- a. The emission testing shall be conducted within 3 months after issuance of this permit and semi-annually thereafter.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates, SO₂, NO_x, and VOC, and the control efficiency limitation for VOC.
- c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for SO₂, Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A; for NO_x, Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A; and for VOC, Methods 1 through 4 and Method 25A of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the control efficiency limitation for VOC is specified below. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while all the above-mentioned emissions unit are operating at or near their maximum capacities, unless otherwise specified or approved by the Portsmouth local air agency.
- e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(C). The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth local air agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth local air agency.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.V.1 and A.V.2. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

Facility Name: **The Dow Chemical Company - Hanging Rock**
Facility ID: **07-44-00-0029**
Emissions Unit: **Performance Foams Primary Curing Warehouse #1**

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
performance foams primary curing warehouse #1 controlled by a thermal oxidizer		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (PTI 07-00494) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isopentane
 TLV(ug/m3): 177055
 Maximum Hourly Emission Rate (lb/hr): 40.2*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 224.64
 MAGLC (ug/m3): 42156

* This was modeled for emissions units P003, P022, P023, P014, P017, and P018, combined.

III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Primary Curing Warehouse #2 (P018)
Activity Description: Performance Foams Primary Curing Warehouse #2, controlled by Thermal Oxidizer

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
performance foams primary curing warehouse #2 controlled by a thermal oxidizer	OAC rule 3745-31-05(A)(3) (PTI 07-00494)	Controlled volatile organic compounds (VOC) emissions shall not exceed 19.2 lbs/hr.
		Allowable emissions from the thermal oxidizer (for the emissions units specified in section A.I.2.b) shall not exceed the following:
		2.75 lbs/hr of particulate emissions 12 tpy of particulate emissions
		0.12 lb/hr of sulfur dioxide (SO ₂) 0.53 tpy of SO ₂
		6.0 lbs/hr of nitrogen oxides (NO _x) 26.3 tpy of NO _x
		40.2 lbs/hr of volatile organic compounds (VOC)
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
		See A.I.2.a through A.I.2.d, A.I.2.f and A.I.2.g below.
	OAC rule 3745-31-05(D) SYNTHETIC MINOR TO AVOID PSD	See A.I.2.a below.
	OAC rule 3745-17-07(A)	See A.I.2.e below.
	OAC rule 3745-17-11(B)	See A.I.2.e below.

2. Additional Terms and Conditions

- 2.a** VOC emissions from this emissions unit shall not exceed 31.5 tpy, based upon a rolling, 365-day summation of the daily emissions.
- 2.b** The following emissions units are vented to the regenerative thermal oxidizer (RTO): P003 (performance foams line #1), P022 (performance foams line #2), P023 (performance foams recycle line), P014 (performance foams line #3), P017 (performance foams primary curing warehouse #1) and P018 (performance foams primary curing warehouse #2).
- 2.c** VOC emissions vented to the RTO shall be controlled by at least 98% at maximum operating capacity.
- 2.d** There shall be no visible emissions in excess of 10% opacity, as a 6-minute average, during any 60-minute observation period.
- 2.e** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.f** The 19.2 lbs/hr VOC limitation for this emissions unit and the 40.2 lbs/hr VOC limitation for emissions units P003, P014, P017, P018, P022, and P023, combined, were established to reflect the hourly potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.
- 2.g** Combined VOC emissions from performance foams primary curing warehouse #1 (P017) and #2 (P018) shall not exceed 16,000 lbs/day when the thermal oxidizer is shutdown.

II. Operational Restrictions

- 1.** The blowing agent (VOC) usage restriction on the performance foams lines (P003, P022, and P014) results in restricted annual emissions from this emissions unit.
- 2.** A minimum temperature of 1425 degrees Fahrenheit shall be maintained in the combustion zone of the thermal oxidizer.
- 3.** The thermal oxidizer, including any associated equipment and piping, shall be designed, operated, and maintained so as to prevent the emissions of objectionable odors.

III. Monitoring and/or Record Keeping Requirements

- 1.** The facility shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emission unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a.** all 3-hr blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was less than 1425 degrees Fahrenheit; and
- b.** a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emission unit is in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall maintain daily records of the following information:
 - a. the curing warehouse factor;
 - b. the curing warehouse inventory;
 - c. the number of hours each product group is stored in the curing warehouse;
 - d. the daily VOC vent emissions for each curing warehouse;
 - e. the VOC emissions, in tons, calculated on a rolling, 365-day average from each curing warehouse;
 - f. the date and time of each thermal oxidizer shutdown;
 - g. the duration of time for each thermal oxidizer shutdown;
 - h. the daily curing warehouse emissions when the thermal oxidizer is shutdown; and
 - i. the rolling, 365-day total of the tons of blowing agent (VOC) employed for all performance foams process lines (P003, P022, and P014) calculated each day.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emission from the RTO stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 05/30/02: A.III.1 and A.III.3. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day VOC emission limitation.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all blocks of time during which the thermal oxidizer combustion zone temperature does not comply with the temperature limitation specified in section A.III.1.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

IV. Reporting Requirements (continued)

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.
5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.IV.1 through A.IV.4. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitations:

2.75 lbs/hr of particulates from the thermal oxidizer
0.12 lb/hr of SO₂ from the thermal oxidizer
6.0 lbs/hr of NO_x from the thermal oxidizer
40.2 lbs/hr of VOC from the thermal oxidizer

VOC emissions vented to the thermal oxidizer shall be controlled by at least 98% at maximum operating capacity.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the appropriate Test Methods as described in section A.V.2.

- 1.b Emission Limitations:

12 tpy of particulates from the thermal oxidizer
0.53 tpy of SO₂ from the thermal oxidizer
26.3 tpy of NO_x from the thermal oxidizer

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the appropriate hourly allowable emission limitation by the actual annual hours of operation, and then dividing by 2000 lbs/hr.

V. Testing Requirements (continued)

1.c Emission Limitation:

VOC emissions from this emissions unit shall not exceed 19.2 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 25 or 25A.

1.d Emission Limitation:

VOC vent emissions from this emissions unit shall not exceed 31.5 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping specified in section A.III.2.

1.e Emission Limitation:

Combined VOC emissions from performance foams primary curing warehouse #1 (P017) and #2 (P018) shall not exceed 16,000 lbs/day when the thermal oxidizer is shutdown.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

1.f Emission Limitation:

There shall be no visible emissions in excess of 10% opacity as a 6-minute average in any 60-minute observation period.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

V. Testing Requirements (continued)

2. The following emissions units vent to the RTO: P003 (performance foams line #1), P022 (performance foams line #2), P014 (performance foams line #3), P023 (performance foams recycle line), P017 (curing warehouse), and P018 (curing warehouse).

The permittee shall conduct, or have conducted, emission testing for the RTO in accordance with the following requirements:

- a. The emission testing shall be conducted within 3 months after issuance of this permit and semi-annually thereafter.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates, SO₂, NO_x, and VOC, and the control efficiency limitation for VOC.
- c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for SO₂, Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A; for NO_x, Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A; and for VOC, Methods 1 through 4 and Method 25A of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the control efficiency limitation for VOC is specified below. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while all the above-mentioned emissions unit are operating at or near their maximum capacities, unless otherwise specified or approved by the Portsmouth local air agency.
- e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(C). The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth local air agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth local air agency.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.V.1 and A.V.2. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

Facility Name: **The Dow Chemical Company - Hanging Rock**
Facility ID: **07-44-00-0029**
Emissions Unit: **Performance Foams Primary Curing Warehouse #2**

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
performance foams primary curing warehouse #2 controlled by a thermal oxidizer		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (PTI 07-00494) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isopentane
 TLV(ug/m3): 177055
 Maximum Hourly Emission Rate (lb/hr): 40.2*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 224.64
 MAGLC (ug/m3): 42156

* This was modeled for emissions units P003, P022, P023, P014, P017, and P018, combined.

III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Product Storage Warehouse #1 (P019)

Activity Description: Performance Foams Product Storage Warehouse #1

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
performance foams product storage warehouse #1	OAC rule 3745-31-05(A)(3) (PTI 07-00494)	800 lbs/day of volatile organic compounds (VOC)
	OAC rule 3745-31-05(D) (PTI 07-00494) Synthetic Minor to avoid PSD	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D). See A.I.2.a below.

2. Additional Terms and Conditions

- 2.a VOC emissions from this emissions unit shall not exceed 70 tpy, based upon a rolling, 365-day summation of the daily emissions.

II. Operational Restrictions

1. The blowing agent (VOC) usage restriction for the performance foams lines (P003, P022, and P014) results in restricted annual emissions from this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain daily records of the following information for this emissions unit:
 - a. the amount of prime product placed in this storage warehouse, in tons;
 - b. the storage warehouse factor;
 - c. the daily VOC emissions, in lbs, i.e., (a) x (b);
 - d. the rolling, 365-day total amount, in tons, of blowing agent (VOC) employed in all performance foam lines (P003, P014, and P022) calculated each day; and
 - e. the VOC emissions, in tons, calculated on a rolling, 365-day average.

The storage warehouse factor is calculated by subtracting the amount of blowing agent released from each product type during production and during primary curing from the initial amount of blowing agent in the product.

III. Monitoring and/or Record Keeping Requirements (continued)

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 05/30/02: A.III.1. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day VOC emission limitation.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.
3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.IV.1 and A.IV.2. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

800 lbs/day of volatile organic compounds (VOC)

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.1 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

1.b Emission Limitation:

VOC vent emissions shall not exceed 70 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance shall be determined based upon the monitoring and record keeping as described in section A.III.1

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.V.1. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Product Storage Warehouse #2 (P020)
Activity Description: Performance Foams Product Storage Warehouse #2

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
performance foams product storage warehouse #2	OAC rule 3745-31-05(A)(3) (PTI 07-00494)	600 lbs/day of volatile organic compounds (VOC)
	OAC rule 3745-31-05(D) (PTI 07-00494) Synthetic Minor to avoid PSD	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D). See A.I.2.a below.

2. Additional Terms and Conditions

- 2.a VOC vent emissions from this emissions unit shall not exceed 53 tpy, based upon a rolling, 365-day summation of the daily emissions.

II. Operational Restrictions

1. The blowing agent (VOC) usage restriction for the performance foams lines (P003, P022, and P014) results in restricted annual emissions from this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain daily records of the following information for this emissions unit:
 - a. the amount of prime product placed in this storage warehouse, in tons;
 - b. the storage warehouse factor;
 - c. the daily VOC emissions, in lbs, i.e., (a) x (b);
 - d. the rolling, 365-day total amount, in tons, of blowing agent (VOC) employed in all performance foam lines (P003, P014, and P022) calculated each day; and
 - e. the VOC emissions, in tons, calculated on a rolling, 365-day average.

The storage warehouse factor is calculated by subtracting the amount of blowing agent released from each product type during production and during primary curing from the initial amount of blowing agent in the product.

III. Monitoring and/or Record Keeping Requirements (continued)

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 05/30/02: A.III.1. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day VOC emission limitation.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.
3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.IV.1 and A.IV.2. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

600 lbs/day of volatile organic compounds (VOC)

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.1 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

1.b Emission Limitation:

VOC vent emissions shall not exceed 53 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance shall be determined based upon the monitoring and record keeping as described in section A.III.1.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.V.1. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Product Storage Warehouse #3 (P021)

Activity Description: Performance Foams Product Storage Warehouse #3

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
performance foams product storage warehouse #3	OAC rule 3745-31-05(A)(3) (PTI 07-00494)	200 lbs/day of volatile organic compounds (VOC)
	OAC rule 3745-31-05(D) (PTI 07-00494) Synthetic Minor to avoid PSD	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D). See A.I.2.a below.

2. Additional Terms and Conditions

- 2.a VOC vent emissions from this emissions unit shall not exceed 18 tpy, based upon a rolling, 365-day summation of the daily emissions.

II. Operational Restrictions

1. The blowing agent (VOC) usage restriction for the performance foams lines (P003, P022, and P014) results in restricted annual emissions from this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain daily records of the following information for this emissions unit:
 - a. the amount of prime product placed in this storage warehouse, in tons;
 - b. the storage warehouse factor;
 - c. the daily VOC emissions, in lbs, i.e., (a) x (b);
 - d. the rolling, 365-day total amount, in tons, of blowing agent (VOC) employed in all performance foam lines (P003, P014, and P022) calculated each day; and
 - e. the VOC emissions, in tons, calculated on a rolling, 365-day average.

The storage warehouse factor is calculated by subtracting the amount of blowing agent released from each product type during production and during primary curing from the initial amount of blowing agent in the product.

III. Monitoring and/or Record Keeping Requirements (continued)

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 05/30/02: A.III.1. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day VOC emission limitation.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.
3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.IV.1 and A.IV.2. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

200 lbs/day of volatile organic compounds (VOC)

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.1 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

1.b Emission Limitation:

VOC vent emissions shall not exceed 18 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance shall be determined based upon the monitoring and record keeping as described in section A.III.1.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.V.1. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Line #2 (P022)
Activity Description: Performance Foams Line #2, controlled by Thermal Oxidizer

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
performance foams plant- line #2 controlled by a thermal oxidizer	OAC rule 3745-31-05(A)(3) (PTI 07-00494)	Controlled volatile organic compounds (VOC) emissions shall not exceed 5.2 lbs/hr.
		Allowable emissions from the thermal oxidizer (for the emissions units specified in section A.I.2.b) shall not exceed the following:
		2.75 lbs/hr of particulate emissions 12 tpy of particulate emissions
		0.12 lb/hr of sulfur dioxide (SO ₂) 0.53 tpy of SO ₂
		6.0 lbs/hr of nitrogen oxides (NO _x) 26.3 tpy of NO _x
		40.2 lbs/hr of volatile organic compounds (VOC)
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
		See A.I.2.a through A.I.2.e and A.I.2.g below.
	OAC rule 3745-31-05(D) SYNTHETIC MINOR TO AVOID PSD (THIS LIMITATION UPON P003 AND P022 WAS PART OF AN EARLIER PTI TO AVOID PSD)	15.9 tons of VOC per rolling, 365-day period for emissions units P003 and P022, combined
	OAC rule 3745-17-07(A)	See A.I.2.f below.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-11(B)	See A.I.2.f below.

2. Additional Terms and Conditions

- 2.a VOC emissions from this emissions unit shall not exceed 15.9 tpy, based upon a rolling, 365-day summation of the daily emissions.
- 2.b The following emissions units are vented to the regenerative thermal oxidizer (RTO): P003 (performance foams line #1), P022 (performance foams line #2), P023 (performance foams recycle line), P014 (performance foams line #3), P017 (performance foams primary curing warehouse #1) and P018 (performance foams primary curing warehouse #2).
- 2.c VOC emissions vented to the RTO shall be controlled by at least 98% at maximum operating capacity.
- 2.d The shutdown of the RTO shall be accompanied by the shutdown of all the performance foam process units which are vented to it.
- 2.e There shall be no visible emissions in excess of 10% opacity, as a 6-minute average, during any 60-minute observation period.
- 2.f The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.g The 5.2 lbs/hr VOC limitation for this emissions unit and the 40.2 lbs/hr VOC limitation for emissions units P003, P014, P017, P018, P022, and P023, combined, were established to reflect the hourly potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

II. Operational Restrictions

- 1. Combined blowing agent (VOC) usage for emissions unit P003 and P022 shall not exceed 2540 tpy, based upon a rolling, 365-day summation of the daily usages.
- 2. A minimum temperature of 1425 degrees Fahrenheit shall be maintained in the combustion zone of the thermal oxidizer.
- 3. The thermal oxidizer, including any associated equipment and piping, shall be designed, operated, and maintained so as to prevent the emissions of objectionable odors.

III. Monitoring and/or Record Keeping Requirements

- 1. The facility shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emission unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. all 3-hr blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was less than 1425 degrees Fahrenheit; and
- b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall maintain daily records of the following information for P003 and P022:
 - a. the daily usage of blowing agent (VOC), in lbs;
 - b. the total combined rolling, 365-day total of the tons of blowing agent (VOC) employed;
 - c. the product type groups produced;
 - d. the operating hours of each product group produced;
 - e. the product type die loss factors;
 - f. the hole punching factor;
 - g. the daily VOC vent emissions;
 - h. the total combined VOC (blowing agent) emissions, in tons, calculated on a rolling, 365-day average;
 - i. the date and time of each thermal oxidizer shutdown; and
 - j. the duration of time for each thermal oxidizer shutdown.

The daily vent emissions for emissions units P003 and P022 are calculated by multiplying the amount of blowing agent released in each process by the destruction efficiency of the control device. The blowing agent released in the process is calculated based on the quantity of product produced on each line (P003 and P022) per day and the amount of blowing agent on each product.

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emission from the RTO stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 05/30/02: A.III.1 and A.III.3. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day combined emission and usage limitations for VOC (blowing agent) for P003 and P022.

IV. Reporting Requirements (continued)

2. The permittee shall submit quarterly deviation (excursion) reports that identify all blocks of time during which the thermal oxidizer combustion zone temperature does not comply with the temperature limitation specified in section A.III.1.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.
5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.IV.1 through A.IV.4. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:

2.75 lbs/hr of particulates from the thermal oxidizer
0.12 lb/hr of SO₂ from the thermal oxidizer
6.0 lbs/hr of NO_x from the thermal oxidizer
40.2 lbs/hr of VOC from the thermal oxidizer

VOC emissions vented to the thermal oxidizer shall be controlled by at least 98% at maximum operating capacity.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the appropriate Test Methods as described in section A.V.2.

1.b Emission Limitations:

12 tpy of particulates from the thermal oxidizer
0.53 tpy of SO₂ from the thermal oxidizer
26.3 tpy of NO_x from the thermal oxidizer

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the appropriate hourly allowable emission limitation by the actual annual hours of operation, and then dividing by 2000 lbs/hr.

V. Testing Requirements (continued)

1.c Emission Limitation:

VOC emissions from this emissions unit shall not exceed 5.2 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 25 or 25A.

1.d Emission Limitation:

VOC vent emissions from this emissions unit shall not exceed 15.9 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping specified in section A.III.2.

1.e Emission Limitation:

15.9 tons of VOC per rolling, 365-day period for emissions units P003 and P022, combined

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping as described in section A.III.2 using the summation of the emissions for emissions units P003 and P022.

1.f Emission Limitation:

There shall be no visible emissions in excess of 10% opacity as a 6-minute average in any 60-minute observation period.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

V. Testing Requirements (continued)

2. The following emissions units vent to the RTO: P003 (performance foams line #1), P022 (performance foams line #2), P014 (performance foams line #3), P023 (performance foams recycle line), P017 (curing warehouse), and P018 (curing warehouse).

The permittee shall conduct, or have conducted, emission testing for the RTO in accordance with the following requirements:

- a. The emission testing shall be conducted within 3 months after issuance of the permit and semi-annually thereafter.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates, SO₂, NO_x, and VOC, and the control efficiency limitation for VOC.
- c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for SO₂, Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A; for NO_x, Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A; and for VOC, Methods 1 through 4 and Method 25A of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the control efficiency limitation for VOC is specified below. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while all the above-mentioned emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the Portsmouth local air agency.
- e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(C). The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth local air agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth local air agency.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.V.1 and A.V.2. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

Facility Name: **The Dow Chemical Company - Hanging Rock**
Facility ID: **07-44-00-0029**
Emissions Unit: **Performance Foams Line #2 (P022)**

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
performance foams plant- line #2 controlled by a thermal oxidizer		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (PTI 07-00494) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isopentane
 TLV(ug/m3): 177055
 Maximum Hourly Emission Rate (lb/hr): 40.2*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 224.64
 MAGLC (ug/m3): 42156

* This was modeled for emissions units P003, P022, P023, P014, P017, and P018, combined.

III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Performance Foams Recycle Line (P023)
Activity Description: Performance Foams Recycle Line

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
performance foams recycle line controlled by a thermal oxidizer	OAC rule 3745-31-05(A)(3) (PTI 07-00494)	Controlled volatile organic compounds (VOC) emissions shall not exceed 17.0 lbs/hr.
		Allowable emissions from the thermal oxidizer (for the emissions units specified in section A.I.2.b) shall not exceed the following:
		2.75 lbs/hr of particulate emissions 12 tpy of particulate emissions
		0.12 lb/hr of sulfur dioxide (SO ₂) 0.53 tpy of SO ₂
		6.0 lbs/hr of nitrogen oxides (NO _x) 26.3 tpy of NO _x
		40.2 lbs/hr of volatile organic compounds (VOC)
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
		See A.I.2.a through A.I.2.f and A.I.2.h below.
	OAC rule 3745-31-05(D) SYNTHETIC MINOR TO AVOID PSD (THIS LIMITATION UPON P003 AND P022 WAS PART OF AN EARLIER PTI TO AVOID PSD)	23.2 tons of VOC per rolling, 365-day period for emissions units P003, P022, P014, and P023, combined
	OAC rule 3745-17-07(A)	See A.I.2.g below.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-11(B)	See A.I.2.g below.

2. Additional Terms and Conditions

- 2.a VOC vent emissions from this emissions unit shall not exceed 23.2 tpy, based upon a rolling, 365-day summation of the daily emissions.
- 2.b The following emissions units are vented to the regenerative thermal oxidizer (RTO): P003 (performance foams line #1), P022 (performance foams line #2), P023 (performance foams recycle line), P014 (performance foams line #3), P017 (performance foams primary curing warehouse #1) and P018 (performance foams primary curing warehouse #2).
- 2.c This emissions unit is controlled by a baghouse. The outlet of the baghouse is vented to the RTO.
- 2.d VOC emissions vented to the RTO shall be controlled by at least 98% at maximum operating capacity.
- 2.e The shutdown of the RTO shall be accompanied by the shutdown of all the performance foam process units which are vented to it.
- 2.f There shall be no visible emissions in excess of 10% opacity, as a 6-minute average, during any 60-minute observation period.
- 2.g The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.h The 17.0 lbs/hr VOC limitation for this emissions unit and the 40.2 lbs/hr VOC limitation for emissions units P003, P014, P017, P018, P022, and P023, combined, were established to reflect the hourly potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

II. Operational Restrictions

- 1. The blowing agent (VOC) usage restriction on the performance foam lines (P003, P022, and P014) results in restricted annual emissions from this emissions unit.
- 2. A minimum temperature of 1425 degrees Fahrenheit shall be maintained in the combustion zone of the thermal oxidizer.
- 3. The thermal oxidizer, including any associated equipment and piping, shall be designed, operated, and maintained so as to prevent the emissions of objectionable odors.
- 4. The pressure drop across the baghouse shall be maintained within the range of 1 to 10 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The facility shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emission unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. all 3-hr blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was less than 1425 degrees Fahrenheit; and
 - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emission unit is in operation.
2. The permittee shall maintain daily records of the following information:
 - a. the amount of scrap products ground;
 - b. the concentration of blowing agent used in recycle products from each emissions unit (P003, P022, and P014);
 - c. the number of hours the emissions unit operated;
 - d. the scrap cure factor;
 - e. the daily scrap inventory, in lbs;
 - f. the hole punching factor;
 - g. the daily VOC vent emissions for P003, P014, P022, P023;
 - h. the total combined VOC emissions, in tons, calculated on a rolling, 365-day average for emissions units P003, P022, P014, and P023;
 - i. the date and time of each thermal oxidizer shutdown; and
 - j. the duration of time for each thermal oxidizer shutdown.
 3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emission from the RTO stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # 07-00494, issued on 05/30/02: A.III.1 and A.III.4. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day combined emission and usage limitations for VOC.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all blocks of time during which the thermal oxidizer combustion zone temperature does not comply with the temperature limitation specified in section A.III.1.
3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply the allowable range specified above.
4. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.
5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Portsmouth local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.
6. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.IV.1 through A.IV.5. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitations:

2.75 lbs/hr of particulates from the thermal oxidizer
0.12 lb/hr of SO₂ from the thermal oxidizer
6.0 lbs/hr of NO_x from the thermal oxidizer
40.2 lbs/hr of VOC from the thermal oxidizer

VOC emissions vented to the thermal oxidizer shall be controlled by at least 98% at maximum operating capacity.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emission tests performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, using the appropriate Test Methods as described in section A.V.2.

1.b Emission Limitations:

12 tpy of particulates from the thermal oxidizer
0.53 tpy of SO₂ from the thermal oxidizer
26.3 tpy of NO_x from the thermal oxidizer

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the appropriate hourly allowable emission limitation by the actual annual hours of operation, and then dividing by 2000 lbs/hr.

1.c Emission Limitation:

VOC emissions from this emissions unit shall not exceed 17.0 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the most recent version of the Ethafoam Emissions Tracking Procedure, approved by the Portsmouth local air agency, and used to calculate emissions from this emission unit. This procedure has been defined by The Dow Chemical Corporation as the "Ethafoam Product Database" and shall be retained on site. This program shall include calculations using monitoring and record keeping as described in section A.III.2 above and shall include calculations based on emission factors developed based on the product mix to calculate emission rates. This program shall be available to an OEPA representative at any time during normal business hours.

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 25 or 25A.

1.d Emission Limitation:

VOC vent emissions from this emissions unit shall not exceed 23.2 tpy, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping specified in section A.III.2.

V. Testing Requirements (continued)

1.e Emission Limitation:

23.2 tons of VOC per rolling, 365-day period for emissions units P003, P022, P014, and P023, combined

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated based upon the monitoring and record keeping as described in section A.III.2 using the summation of the emissions for emissions units P003, P022, P014, and P023, combined.

1.f Emission Limitation:

There shall be no visible emissions in excess of 10% opacity as a 6-minute average in any 60-minute observation period.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9.

2. The following emissions units vent to the RTO: P003 (performance foams line #1), P022 (performance foams line #2), P014 (performance foams line #3), P023 (performance foams recycle line), P017 (curing warehouse), and P018 (curing warehouse).

The permittee shall conduct, or have conducted, emission testing for the RTO in accordance with the following requirements:

- a. The emission testing shall be conducted within 3 months after issuance of this permit and semi-annually thereafter.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates, SO₂, NO_x, and VOC, and the control efficiency limitation for VOC.
- c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for SO₂, Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A; for NO_x, Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A; and for VOC, Methods 1 through 4 and Method 25A of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the control efficiency limitation for VOC is specified below. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while all the above-mentioned emissions unit are operating at or near their maximum capacities, unless otherwise specified or approved by the Portsmouth local air agency.

V. Testing Requirements (continued)

e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(C). The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth local air agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth local air agency.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #07-00494, issued on 05/30/02: A.V.1 and A.V.2. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
performance foams recycle line controlled by a thermal oxidizer		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (PTI 07-00494) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isopentane
 TLV(ug/m3): 177055
 Maximum Hourly Emission Rate (lb/hr): 40.2*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 224.64
 MAGLC (ug/m3): 42156

* This was modeled for emissions units P003, P022, P023, P014, P017, and P018, combined.

III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Acrylonitrile Storage Tank (T003)

Activity Description: Acrylonitrile Storage Tank (Styron TM) - 110,000 gallons pressurized storage tank

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
acrylonitrile storage tank	OAC rule 3745-31-05(A)(3) (PTI 07-063)	none
	OAC rule 3745-21-07(D)(1)	See A.I.2.a below.
	40 CFR Part 63, Subpart JJJ	See A.I.2.b below.

2. Additional Terms and Conditions

- 2.a No person shall place, store, or hold in any stationary tank, reservoir or other container of more than sixty-five thousand gallons capacity any volatile photochemically reactive material unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere.
- 2.b For each Group 1 storage vessel storing a liquid for which the maximum true vapor pressure of the total organic hazardous air pollutants in the liquid is less than 76.6 kilopascals, the permittee shall reduce hazardous air pollutants emissions to the atmosphere either by operating and maintaining a fixed roof and internal floating roof, an external floating roof, an external floating roof converted to an internal floating roof, or a closed vent system and control device, or routing the emissions to a process or a fuel gas system.
 - i. The permittee who elects to use a closed vent system and control device, shall comply with the requirements specified in A.I.2.b.i.(1) through A.I.2.b.i.(5).
 - (1) Except as provided in A.I.2.b.i.(2), the control device shall be designed and operated to reduce inlet emissions of total organic HAP by 95 percent or greater.
 - (2) If the permittee can demonstrate that a control device installed on a storage vessel on or before March 29, 1995 is designed to reduce inlet emissions of total organic HAP by greater than or equal to 90 percent but less than 95 percent, then the control device is required to be operated to reduce inlet emissions of total organic HAP by 90 percent or greater.
 - (3) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable, shall not exceed 240 hours per year.
 - (4) The specifications and requirements in A.I.2.b.i.(1) and A.I.2.b.i.(2) for control devices do not apply during periods of planned routine maintenance.

2. Additional Terms and Conditions (continued)

(5) The specifications and requirements in A.I.2.b.i.(1) and A.I.2.b.i.(2) for control devices do not apply during a control system malfunction.

(6) The permittee may use a combination of control devices to achieve the required reduction of total organic hazardous air pollutants specified in A.I.2.b.i.(1). The permittee may use a combination of control devices installed on a storage vessel on or before March 29, 1995 to achieve the required reduction of total organic hazardous air pollutants specified in A.I.2.b.i.(2).

2.c The permittee shall comply with the leak inspection provisions, as applicable, in A.VI.1 below.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. Each permittee of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation.
2. The permittee who elects to comply with A.I.2.b.i.(1) or A.I.2.b.i.(2) shall keep in a readily accessible location the records specified in A.III.2.a and A.III.2.b.
 - a. A record of the measured values of the parameters monitored in accordance with A.III.3.a.v.
 - b. A record of the planned routine maintenance performed on the control device including the duration of each time the control device does not meet the specifications of A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable, due to the planned routine maintenance. Such a record shall include the information specified in A.III.2.b.i and A.III.2.b.ii.
 - i. The first time of day and date the requirements of A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable, were not met at the beginning of the planned routine maintenance; and
 - ii. The first time of day and date the requirements of A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable, were met at the conclusion of the planned routine maintenance.
3.
 - e. The permittee shall monitor the parameters specified in the Notification of Compliance Status and shall operate and maintain the control device such that the monitored parameters remain within the ranges specified in the Notification of Compliance Status.
 - f. Except as provided in A.III.3.g, each closed vent system shall be inspected as specified in A.VI.1. The initial and annual inspections required by A.VI.1 shall be performed during filling of the storage vessel.
 - g. For any fixed roof tank and closed vent system that are operated and maintained under negative pressure, the permittee is not required to comply with the requirements specified in A.VI.1.

III. Monitoring and/or Record Keeping Requirements (continued)

h. A design evaluation or performance test is not required, if the permittee uses a combustion device meeting the criteria in A.III.3.h.i through A.III.3.h.iv.

i. A boiler or process heater with a design heat input capacity of 44 megawatts or greater.

ii. A boiler or process heater burning hazardous waste for which the permittee:

(1) Has been issued a final permit under 40 CFR Part 270 and complies with the requirements of 40 CFR Part 266, Subpart H; or

(2) Has certified compliance with the interim status requirements of 40 CFR Part 266, Subpart H.

iii. A hazardous waste incinerator for which the permittee has been issued a final permit under 40 CFR Part 270 and complies with the requirements of 40 CFR Part 264, Subpart O or has certified compliance with the interim status requirements of 40 CFR Part 265, Subpart O.

iv. A boiler or process heater into which the vent stream is introduced with the primary fuel.

To demonstrate compliance with the requirements of A.I.2.b.i for a storage vessel equipped with a closed vent system and control device using a control device other than a flare, the permittee shall comply with the requirements in A.III.3.a through A.III.3.g, except as provided in A.III.3.h.

a. The permittee shall either prepare a design evaluation, which includes the information specified in A.III.3.a.i, or submit the results of a performance test as described in A.III.3.a.ii.

i. The design evaluation shall include documentation demonstrating that the control device being used achieves the required control efficiency during reasonably expected maximum filling rate. This documentation is to include a description of the gas stream which enters the control device, including flow and organic HAP content under varying liquid level conditions, and the information specified in A.III.3.a.i.(1) through A.III.3.a.i.(5), as applicable.

(1) If the control device receives vapors, gases or liquids, other than fuels, from emission points other than storage vessels subject to 40 CFR Part 63, Subpart JJJ, the efficiency demonstration is to include consideration of all vapors, gases, and liquids, other than fuels, received by the control device.

(2) If an enclosed combustion device with a minimum residence time of 0.5 second and a minimum temperature of 760 degrees C is used to meet the emission reduction requirement specified in A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable, documentation that those conditions exist is sufficient to meet the requirements of A.III.3.a.i.

III. Monitoring and/or Record Keeping Requirements (continued)

(3) Except as provided in A.III.3.a.i.(2) for thermal incinerators, the design evaluation shall include the autoignition temperature of the organic HAP, the flow rate of the organic HAP emission stream, the combustion temperature, and the residence time at the combustion temperature.

(4) For carbon adsorbers, the design evaluation shall include the affinity of the organic HAP vapors for carbon, the amount of carbon in each bed, the number of beds, the humidity of the feed gases, the temperature of the feed gases, the flow rate of the organic HAP emission stream, the desorption schedule, the regeneration stream pressure or temperature, and the flow rate of the regeneration stream. For vacuum desorption, pressure drop shall be included.

(5) For condensers, the design evaluation shall include the final temperature of the organic HAP vapors, the type of condenser, and the design flow rate of the organic HAP emission stream.

(ii) If the control device used to comply with the requirements is for another emission unit, the performance test required for those requirements is acceptable for demonstrating compliance with A.I.2.b.i. The permittee is not required to prepare a design evaluation for the control device as described in A.III.3.a.i if the performance test meets the criteria specified in A.III.3.a.ii.(1) below.

(1) The performance test demonstrates that the control device achieves greater than or equal to the required control efficiency specified in of A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable; and

(2) The performance test shall be submitted as part of the Notification of Compliance Status.

b. The permittee shall submit as part of the Notification of Compliance Status, a monitoring plan containing the information specified in A.III.3.b.i and either A.III.3.b.ii or A.III.3.b.iii.

i. A description of the parameter to be monitored to ensure that the control device is being properly operated and maintained, an explanation of the criteria used for selection of the parameter, and the frequency with which monitoring will be performed; and either

ii. The documentation specified in A.III.3.a.i if the permittee elects to prepare a design evaluation; or

iii. The information specified in A.III.3.b.iii.(1) and A.III.3.b.iii.(2) if the permittee elects to submit the results of a performance test.

(1) Identification of the storage vessel and control device for which the performance test is being submitted, and

(2) Identification of the emission point that share the control device with the storage vessel and for which the performance test will be conducted.

c. The permittee shall submit, as part of the Notification of Compliance Status, the information specified in A.III.3.c.i and, if applicable, A.III.3.c.ii.

i. The level for each monitoring parameter identified in the monitoring plan. The specified level shall represent the conditions for which the control device is being properly operated and maintained.

ii. Results of the performance test described in A.III.3.a.ii.

d. The permittee shall demonstrate compliance with the requirements of A.I.2.b.i.(1) or A.I.2.b.i.(2) (planned routine maintenance of a control device, during which the control device does not meet the specifications of A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable, shall not exceed 240 hours per year by including in each Periodic Report the information specified in A.IV.4.a.

IV. Reporting Requirements

1. For each Group 1 storage vessel, the permittee shall comply with the following:
 - a. The permittee shall submit a Notification of Compliance Status and shall submit as part of the Notification of Compliance Status the information specified in A.IV.3.
 - b. The permittee shall submit Periodic Reports and shall submit as part of the Periodic Reports the information specified in A.IV.4.
2. The permittee who elects to comply with A.I.2.b.i by using a closed vent system and a control device other than a flare shall submit, as part of the Monitoring Plan, the information specified in A.III.3.b.i and the information specified in either A.III.3.b.ii or A.III.3.b.iii.
3. The permittee who elects to comply with A.I.2.b.i by using a closed vent system and a control device shall submit, as part of the Notification of Compliance Status, the following:
 - a. If a control device other than a flare is used, the permittee shall submit the information specified in A.III.3.c.i.
4. The permittee who elects to comply with A.I.2.b.i by installing a closed vent system and control device shall submit, as part of the next Periodic Report, the information specified in A.IV.4.a and A.IV.4.b.
 - a. As required by A.III.3.d, the Periodic Report shall include the information specified in A.IV.4.a.i and A.IV.4.a.ii for those planned routine maintenance operations that would require the control device not to meet the requirements of of A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable.
 - i. A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6 months. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.
 - ii. A description of the planned routine maintenance that was performed for the control device during the previous 6 months. This description shall include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of of A.I.2.b.i.(1) or A.I.2.b.i.(2), as applicable, due to planned routine maintenance.
 - b. If a control device other than a flare is used, the Periodic Report shall describe each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status in accordance with A.III.3.c.i. The description shall include the information specified in A.IV.4.b.i and A.IV.4.b.ii.
 - i. identification of the control device for which the measured parameters were outside of the established ranges; and
 - ii. the cause for the measured parameters to be outside of the established ranges.

V. Testing Requirements

None

VI. Miscellaneous Requirements

1. The permittee shall comply with the requirements of A.VI.2 through A.VI.10 for each vapor collection system, closed-vent system, fixed roof, cover, or enclosure required to comply with this section.

If a closed-vent system is also subject to the requirements of another Organic Hazardous Leak Detection and Repair Program, the permittee shall comply with the provisions of that program and is exempt from the requirements of A.VI.1.

VI. Miscellaneous Requirements (continued)

2. a. If the vapor collection system or closed vent system is constructed of hard-piping, the permittee shall:
 - i. conduct an initial inspection according to the procedures in A.VI.3; and
 - ii. conduct annual visual inspections for visible, audible, or olfactory indications of leaks.
- b. If the vapor collection system or closed vent system is constructed of ductwork, the permittee shall:
 - i. conduct an initial inspection according to the procedures in A.VI.3;
 - ii. conduct annual inspections according to the procedures in A.VI.3; and
 - iii. conduct annual visual inspections for visible, audible, or olfactory indications of leaks.
3. Each vapor collection system and closed vent system shall be inspected according to the procedures specified in A.VI.3.a through A.VI.3.f.
 - a. Inspections shall be conducted in accordance with Method 21 of 40 CFR Part 60, Appendix A.
 - b.i. Except as provided in A.VI.3.b.ii, the detection instrument shall meet the performance criteria of Method 21 of 40 CFR Part 60, Appendix A, except the instrument response factor criteria in section 3.1.2.a of Method 21 shall be for the average composition of the process fluid not each individual volatile organic compound in the stream. For process streams that contain nitrogen, air, or other inerts which are not organic hazardous air pollutants or volatile organic compounds, the average stream response factor shall be calculated on an inert-free basis.
 - ii. If no instrument is available at the plant site that will meet the performance criteria specified in A.VI.3, the instrument readings may be adjusted by multiplying by the average response factor of the process fluid, calculated on an inert-free basis as described in A.VI.3.
 - c. The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR Part 60, Appendix A.
 - d. Calibration gases shall be as follows:
 - i. Zero air (less than 10 parts per million hydrocarbon in air); and
 - ii. Mixtures of methane in air at a concentration less than 10,000 parts per million. A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in section 3.1.2 of Method 21. In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.
 - e. The permittee may elect to adjust or not adjust instrument readings for background. If the permittee elects to not adjust readings for background, all such instrument readings shall be compared directly to the applicable leak definition to determine whether there is a leak. If the permittee elects to adjust instrument readings for background, the permittee shall measure background concentration using the procedures in 40 CFR Part 63, Subpart H, section 180(b) and (c). The permittee shall subtract the background reading from the maximum concentration indicated by the instrument.
 - f. The arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared with 500 parts per million for determining compliance.

VI. Miscellaneous Requirements (continued)

4. Leaks, as indicated by an instrument reading greater than 500 parts per million above background or by visual inspections, shall be repaired as soon as practicable, except as provided in A.VI.5.
 - a. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
 - b. Repair shall be completed no later than 15 calendar days after the leak is detected, except as provided in A.VI.4.c.
 - c. For leaks found in vapor collection systems used for transfer operations, repairs shall be completed no later than 15 calendar days after the leak is detected or at the beginning of the next transfer loading operation, whichever is later.
5. Delay of repair of a vapor collection system, closed vent system, fixed roof, cover, or enclosure for which leaks have been detected is allowed if the repair is technically infeasible without a shutdown, or if the permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next shutdown.
6. For each vapor collection system or closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the permittee shall comply with either A.VI.6.a. or A.VI.6.b, except as provided in A.VI.6.c.
 - a. Install, calibrate, maintain, and operate a flow indicator that determines whether vent stream flow is present at least once every 15 minutes. The flow indicator shall be installed at the entrance to any bypass line.; or
 - b. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.
 - c. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to this paragraph.
7. Any parts of the vapor collection system, closed vent system, fixed roof, cover, or enclosure that are designated, as described in A.VI.9, as unsafe to inspect are exempt from the inspection requirements of A.VI.1 if:
 - a. the permittee determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with A.VI.1; and
 - b. the permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.
8. Any parts of the vapor collection system or closed vent system that are designated, as described in A.VI.9, as difficult to inspect are exempt from the inspection requirements of A.VI.1 if:
 - a. the permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and
 - b. the permittee has a written plan that requires inspection of the equipment at least once every 5 years.

VI. Miscellaneous Requirements (continued)

9. The permittee shall record the information specified in A.VI.9.a through A.VI.9.f.
- a. Identification of all parts of the vapor collection system, closed vent system, fixed roof, cover, or enclosure that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.
 - b. Identification of all parts of the vapor collection system, closed vent system, fixed roof, cover, or enclosure that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.
 - c. For each vapor collection system or closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the permittee shall keep a record of the information specified in either A.VI.9.c.i or A.VI.9.c.ii.
 - i. Hourly records of whether the flow indicator specified under A.VI.6.a was operating and whether a diversion was detected at any time during the hour, as well as records of the times of all periods when the vent stream is diverted from the control device or the flow indicator is not operating.
 - ii. Where a seal mechanism is used to comply with A.VI.6.b, hourly records of flow are not required. In such cases, the permittee shall record whether the monthly visual inspection of the seals or closure mechanisms has been done, and shall record the occurrence of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type configuration has been checked out, and records of any car-seal that has broken.
 - d. For each inspection during which a leak is detected, a record of the information specified in A.VI.9.d.i through A.VI.9.d.viii:
 - i. the instrument identification numbers; operator name or initials; and identification of the equipment;
 - ii. the date the leak was detected and the date of the first attempt to repair the leak;
 - iii. maximum instrument reading measured by the method specified in A.VI.4 after the leak is successfully repaired or determined to be nonrepairable;
 - iv. "repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak;
 - v. the name, initials, or other form of identification of the permittee whose decision it was that repair could not be effected without a shutdown;
 - vi. the expected date of successful repair of the leak if a leak is not repaired within 15 calendar days;
 - vii. dates of shutdowns that occur while the equipment is unrepaired; and
 - viii. the date of successful repair of the leak.
 - e. For each inspection conducted in accordance with A.VI.3 during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
 - f. For each visual inspection conducted in accordance with A.VI.2.a.i during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

VI. Miscellaneous Requirements (continued)

- 10.** The permittee shall submit with the Periodic reports required by this permit, the information specified in A.VI.10.a through A.VI.10.c:
 - a. the information specified in A.VI.9.d;
 - b. reports of the times of all periods recorded under A.VI.9.c.i when the vent stream is diverted from the control device through a bypass line; and
 - c. reports of all periods recorded under A.VI.9.c.ii in which the seal mechanism is broken, the bypass line valve position has changed, or the key to unlock the bypass line valve was checked out.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Marine Styrene Storage Tank B-1 (T004)

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
marine styrene storage tank B-1	none	none

See A.I.2.a and A.I.2.b below.

2. Additional Terms and Conditions

- 2.a The provisions of 40 CFR Part 63, Subpart JJJ do not apply to storage vessels containing styrene at existing affected sources as stated in 40 CFR 63.1314(d).
- 2.b This facility is not located in a Priority I area as defined in OAC rule 3745-21-06 and this emissions unit is not a "new source" as defined in OAC rule 3745-15-01; therefore, the emission limitations and/or control measures in OAC rule 3745-21-07 do not apply to this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Marine Styrene Storage Tank B-2 (T005)

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
marine styrene storage tank B-2	none	none

See A.I.2.a and A.I.2.b below.

2. Additional Terms and Conditions

- 2.a The provisions of 40 CFR Part 63, Subpart JJJ do not apply to storage vessels containing styrene at existing affected sources as stated in 40 CFR 63.1314(d).
- 2.b This facility is not located in a Priority I area as defined in OAC rule 3745-21-06 and this emissions unit is not a "new source" as defined in OAC rule 3745-15-01; therefore, the emission limitations and/or control measures in OAC rule 3745-21-07 do not apply to this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Facility Name:
Facility ID:
Emissions Unit:

Facility Name:
Facility ID:
Emissions Unit:

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