State of Ohio Environmental Protection Agency

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

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

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

12/24/02

**CERTIFIED MAIL**

**RE: Preliminary Proposed Title V**
**Chapter 3745-77 permit**

03-70-00-0226
PAVONIA COMPRESSOR STATION
Mike Hoffman
Environmental Affairs Department
P. O. Box 1273
Charleston, WV 25325-1273

Dear Mike Hoffman:

Enclosed is the Ohio EPA Preliminary Proposed Title V permit that was issued in draft form on (not issued). The comment period for the Draft permit has ended. We are now ready to submit this permit to USEPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written, you now have the opportunity to raise your concerns. **Please submit, in writing, any comments you may have within fourteen (14) days from your receipt of this letter to:**

Ohio Environmental Protection Agency
Jim Orlemann, Manager, Engineering Section
Division of Air Pollution Control
P.O.Box 1049
Columbus, OH 43216-1049

and

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

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

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

Very truly yours,

Michael W. Ahern

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

cc: Northwest District Office
File, DAPC PMU

State of Ohio Environmental Protection Agency

# PRELIMINARY PROPOSED TITLE V PERMIT

| Issue Date: 12/24/02 | 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: 03-70-00-0226 to:

PAVONIA COMPRESSOR STATION
Environmental Affairs Department
1700 MacCorkle Avenue, S.E.
Charleston, WV 25325

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

B002 (HEATER #3)
LINE HEATER: A NATURAL GAS-FIRED INDIRECT PROCESS HEATER.

B004 (HEATER #2)
LINE HEATER: A NATURAL GAS-FIRED INDIRECT PROCESS HEATER.

P001 (RECIP ENGINE/GENERATOR #067G1)
EMERGENCY GENERATOR : A NATURAL GAS-FIRED RECIPROCATING ENGINE GENERATING ELECTRICITY.

P002 (TEG DEHYDRATOR #1)
TEG DEHYDRATOR WITH REGENERATOR BOILER AND A THERMAL OXIDIZER AS CONTROL DEVICE

P003 (TEG DEHYDRATOR #2)
TEG DEHYDRATOR WITH REGENERATOR BOILER AND A THERMAL OXIDIZER AS CONTROL DEVICE

P004 (RECIP ENGINE/INTEGRAL COMPR #06701)
PRIME MOVER : A NATURAL GAS-FIRED RECIPROCATING ENGINE COMPRESSING NATURAL GAS.

P005 (RECIP ENGINE/INTEGRAL COMPR #06702)
PRIME MOVER : A NATURAL GAS-FIRED RECIPROCATING ENGINE COMPRESSING NATURAL GAS.

P006 (RECIP ENGINE/INTEGRAL COMPR #06703)
PRIME MOVER : A NATURAL GAS-FIRED RECIPROCATING ENGINE COMPRESSING NATURAL GAS.

P007 (RECIP ENGINE/INTEGRAL COMPR #06704)
PRIME MOVER : A NATURAL GAS-FIRED RECIPROCATING ENGINE COMPRESSING NATURAL GAS.

P008 (RECIP ENGINE/INTEGRAL COMPR #06705)
PRIME MOVER : A NATURAL GAS-FIRED RECIPROCATING ENGINE COMPRESSING NATURAL GAS.

P009 (RECIP ENGINE/INTEGRAL COMPR #06706)
PRIME MOVER : A NATURAL GAS-FIRED RECIPROCATING ENGINE COMPRESSING NATURAL GAS.

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-04(A) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

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

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

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 the permittee is required to 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"), the permittee shall comply with the requirement to register such a 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 <u>Federally Enforceable</u> 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 following non-insignificant emissions units located at this facility are subject to 40 CFR Part 63, Subpart HHH - National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities:

a. Teg Dehydrator #1, Ohio EPA emissions unit P002; and
b. Teg Dehydrator #2, Ohio EPA emissions unit P003.

Each non-insignificant emissions unit identified above must comply with the following federal regulations, emission limitations and/or control requirements.

**2.** Paragraph 63.1270 Applicability and designation of affected source.

(a) This subpart applies to owners and operators of natural gas transmission and storage facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final end user (if there is no local distribution company), and that are major sources of hazardous air pollutants (HAP) emissions as defined in Paragraph 63.1271. Emissions for major source determination purposes can be estimated using the maximum natural gas throughput calculated in either paragraph (a)(1) or (2) of this section and paragraphs (a)(3) and (4) of this section. As an alternative to calculating the maximum natural gas throughput, the owner or operator of a new or existing source may use the facility design maximum natural gas throughput to estimate the maximum potential emissions. Other means to determine the facility's major source status are allowed, provided the information is documented and recorded to the Administrator's satisfaction. A compressor station that transports natural gas prior to the point of custody transfer or to a natural gas processing plant (if present) is not considered a part of the natural gas transmission and storage source category. A facility that is determined to be an area source, but subsequently increases its emissions or its potential to emit above the major source levels (without first obtaining and complying with other limitations that keep its potential to emit HAP below major source levels), and becomes a major source, must comply thereafter with all applicable provisions of this subpart starting on the applicable compliance date specified in paragraph (d) of this section. Nothing in this paragraph is intended to preclude a source from limiting its potential to emit through other appropriate mechanisms that may be available through the permitting authority.

## A. State and Federally Enforcable Section (continued)

(1) Facilities that store natural gas or facilities that transport and store natural gas shall calculate maximum annual facility natural gas throughput using the following equation:

Throughput = (8760) / [(1/IRmax) + (1/WRmax)]

Where:

Throughput = Maximum annual facilitywide natural gas throughput in cubic meters per year.

IR max = Maximum facility injection rate in cubic meters per hour.

WR max = Maximum facility withdrawal rate in cubic meters per hour.

8,760 = Maximum hours of operation per year.

(i)-(iii) [Reserved]

(2) Facilities that only transport natural gas shall calculate the maximum natural gas throughput as the highest annual natural gas throughput over the 5 years prior to June 17, 1999, multiplied by a factor of 1.2.

(3) The owner or operator shall maintain records of the annual facility natural gas throughput each year and upon request, submit such records to the Administrator. If the facility annual natural gas throughput increases above the maximum natural gas throughput calculated in paragraph (a)(1) or (a)(2) of this section, the maximum natural gas throughput must be recalculated using the higher throughput multiplied by a factor of 1.2.

(4) The owner or operator shall determine the maximum values for other parameters used to calculate potential emissions as the maximum over the same period for which maximum throughput is determined as specified in paragraph (a)(1) or (a)(2) of this section. These parameters shall be based on an annual average or the highest single measured value.

(b) The affected source is each glycol dehydration unit.

(c) The owner or operator of a facility that does not contain an affected source, as specified in paragraph (b) of this section, is not subject to the requirements of this subpart.

(d) The owner or operator of each affected source shall achieve compliance with the provisions of this subpart by the following dates:

## A. State and Federally Enforcable Section (continued)

(1) The owner or operator of an affected source, the construction or reconstruction of which commenced before February 6, 1998, shall achieve compliance with this provisions of the subpart no later than June 17, 2002 except as provided for in Paragraph 63.6(i). The owner or operator of an area source, the construction or reconstruction of which commenced before February 6, 1998, that increases its emissions of (or its potential to emit) HAP such that the source becomes a major source that is subject to this subpart shall comply with this subpart 3 years after becoming a major source.

(2) The owner or operator of an affected source, the construction or reconstruction of which commences on or after February 6, 1998, shall achieve compliance with the provisions of this subpart immediately upon initial startup or June 17, 1999, whichever date is later. Area sources, the construction or reconstruction of which commences on or after February 6, 1998, that become major sources shall comply with the provisions of this standard immediately upon becoming a major source.

(e) An owner or operator of an affected source that is a major source or is located at a major source and is subject to the provisions of this subpart is also subject to 40 CFR part 70 or part 71 permitting requirements.

(f) Exemptions. A facility with a facilitywide actual annual average natural gas throughput less than 28.3 thousand standard cubic meters per day, where glycol dehydration units are the only HAP emission source, is not subject to the requirements of this subpart. Records shall be maintained as required in Paragraph 63.10(b)(3).

[64 FR 32648, June 17, 1999, as amended at 66 FR 34555, June 29, 2001; 66 FR 49300, Sept. 27, 2001; 67 FR 8204, Feb. 22, 2002]

**3.** Paragraph 63.1271 Definitions.

All terms used in this subpart shall have the meaning given to them in the Clean Air Act, subpart A of this part (General Provisions), and in this section. If the same term is defined in subpart A and in this section, it shall have the meaning given in this section for purposes of this subpart.

Boiler means an enclosed device using controlled flame combustion and having the primary purpose of recovering and exporting thermal energy in the form of steam or hot water. Boiler also means any industrial furnace as defined in 40 CFR 260.10.

Closed-vent system means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and if necessary, flow inducing devices that transport gas or vapor from an emission point to one or more control devices. If gas or vapor from regulated equipment is routed to a process (e.g., to a fuel gas system), the conveyance system shall not be considered a closed-vent system and is not subject to closed-vent system standards.

Combustion device means an individual unit of equipment, such as a flare, incinerator, process heater, or boiler, used for the combustion of organic HAP emissions.

Compressor station means any permanent combination of compressors that move natural gas at increased pressure from fields, in transmission pipelines, or into storage.

Continuous recorder means a data recording device that either records an instantaneous data value at least once every hour or records hourly or more frequent block average values.

## A. State and Federally Enforcable Section (continued)

Control device means any equipment used for recovering or oxidizing HAP or volatile organic compound (VOC) vapors. Such equipment includes, but is not limited to, absorbers, carbon absorbers, condensers, incinerators, flares, boilers, and process heaters. For the purposes of this subpart, if gas or vapor from regulated equipment is used, reused (i.e., injected into the flame zone of an enclosed combustion device), returned back to the process, or sold, then the recovery system used, including piping, connections, and flow inducing devices, is not considered to be a control device or a closed-vent system.

Custody transfer means the transfer of natural gas after processing and/or treatment in the production operations to pipelines or any other forms of transportation.

Facility means any grouping of equipment where natural gas is processed, compressed, or stored prior to entering a pipeline to a local distribution company or (if there is no local distribution company) to a final end user. Examples of a facility for this source category are: an underground natural gas storage operation; or a natural gas compressor station that receives natural gas via pipeline, from an underground natural gas storage operation, or from a natural gas processing plant. The emission points associated with these phases include, but are not limited to, process vents. Processes that may have vents include, but are not limited to, dehydration and compressor station engines.

Facility, for the purpose of a major source determination, means natural gas transmission and storage equipment that is located inside the boundaries of an individual surface site (as defined in this section) and is connected by ancillary equipment, such as gas flow lines or power lines. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Natural gas transmission and storage equipment or groupings of equipment located on different gas leases, mineral fee tracts, lease tracts, subsurface unit areas, surface fee tracts, or surface lease tracts shall not be considered part of the same facility.

Flame zone means the portion of the combustion chamber in a combustion device occupied by the flame envelope.

Flash tank. See the definition for gas-condensate-glycol (GCG) separator.

Flow indicator means a device which indicates whether gas flow is present in a line or whether the valve position would allow gas flow to be present in a line.

Gas-condensate-glycol (GCG) separator means a two-or three-phase separator through which the "rich" glycol stream of a glycol dehydration unit is passed to remove entrained gas and hydrocarbon liquid. The GCG separator is commonly referred to as a flash separator or flash tank.

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes "rich" glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The "lean" glycol is then recycled.

## A. State and Federally Enforcable Section (continued)

Glycol dehydration unit baseline operations means operations representative of the glycol dehydration unit operations as of June 17, 1999. For the purposes of this subpart, for determining the percentage of overall HAP emission reduction attributable to process modifications, glycol dehydration unit baseline operations shall be parameter values (including, but not limited to, glycol circulation rate or glycol-HAP absorbency) that represent actual long-term conditions (i.e., at least 1 year). Glycol dehydration units in operation for less than 1 year shall document that the parameter values represent expected long-term operating conditions had process modifications not been made.

Glycol dehydration unit process vent means the glycol dehydration unit reboiler vent and the vent from the GCG separator (flash tank), if present.

Glycol dehydration unit reboiler vent means the vent through which exhaust from the reboiler of a glycol dehydration unit passes from the reboiler to the atmosphere or to a control device.

Hazardous air pollutants or HAP means the chemical compounds listed in section 112(b) of the Clean Air Act (Act). All chemical compounds listed in section 112(b) of the Act need to be considered when making a major source determination. Only the HAP compounds listed in Table 1 of this subpart need to be considered when determining compliance.

Incinerator means an enclosed combustion device that is used for destroying organic compounds. Auxiliary fuel may be used to heat waste gas to combustion temperatures. Any energy recovery section is not physically formed into one manufactured or assembled unit with the combustion section; rather, the energy recovery section is a separate section following the combustion section and the two are joined by ducts or connections carrying flue gas. The above energy recovery section limitation does not apply to an energy recovery section used solely to preheat the incoming vent stream or combustion air.

Initial startup means the first time a new or reconstructed source begins production. For the purposes of this subpart, initial startup does not include subsequent startups (as defined in this section) of equipment, for example, following malfunctions or shutdowns.

Major source, as used in this subpart, shall have the same meaning as in Paragraph 63.2, except that:

(1) Emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control; and

(2) Emissions from processes, operations, and equipment that are not part of the same facility, as defined in this section, shall not be aggregated.

Natural gas means a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface. The principal hydrocarbon constituent is methane.

Natural gas transmission means the pipelines used for the long distance transport of natural gas (excluding processing). Specific equipment used in natural gas transmission includes the land, mains, valves, meters, boosters, regulators, storage vessels, dehydrators, compressors, and their driving units and appurtenances, and equipment used for transporting gas from a production plant, delivery point of purchased gas, gathering system, storage area, or other wholesale source of gas to one or more distribution area(s).

## A. State and Federally Enforcable Section (continued)

No detectable emissions means no escape of HAP from a device or system to the atmosphere as determined by:

(1) Instrument monitoring results in accordance with the requirements of Paragraph 63.1282(b); and

(2) The absence of visible openings or defects in the device or system, such as rips, tears, or gaps.

Operating parameter value means a minimum or maximum value established for a control device or process parameter which, if achieved by itself or in combination with one or more other operating parameter values, indicates that an owner or operator has complied with an applicable operating parameter limitation, over the appropriate averaging period as specified in Paragraph 63.1282 (e) and (f).

Operating permit means a permit required by 40 CFR part 70 or part 71.

Organic monitoring device means an instrument used to indicate the concentration level of organic compounds exiting a control device based on a detection principle such as infra-red, photoionization, or thermal conductivity.

Primary fuel means the fuel that provides the principal heat input (i.e., more than 50 percent) to the device. To be considered primary, the fuel must be able to sustain operation without the addition of other fuels.

Process heater means an enclosed device using a controlled flame, the primary purpose of which is to transfer heat to a process fluid or process material that is not a fluid, or to a heat transfer material for use in a process (rather than for steam generation) .

Safety device means a device that meets both of the following conditions: the device is not used for planned or routine venting of liquids, gases, or fumes from the unit or equipment on which the device is installed; and the device remains in a closed, sealed position at all times except when an unplanned event requires that the device open for the purpose of preventing physical damage or permanent deformation of the unit or equipment on which the device is installed in accordance with good engineering and safety practices for handling flammable, combustible, explosive, or other hazardous materials. Examples of unplanned events which may require a safety device to open include failure of an essential equipment component or a sudden power outage.

Shutdown means for purposes including, but not limited to, periodic maintenance, replacement of equipment, or repair, the cessation of operation of a glycol dehydration unit, or other affected source under this subpart, or equipment required or used solely to comply with this subpart.

Startup means the setting into operation of a glycol dehydration unit, or other affected equipment under this subpart, or equipment required or used to comply with this subpart. Startup includes initial startup and operation solely for the purpose of testing equipment.

Storage vessel means a tank or other vessel that is designed to contain an accumulation of crude oil, condensate, intermediate hydrocarbon liquids, produced water, or other liquid, and is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) that provide structural support.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

## A. State and Federally Enforcable Section (continued)

Temperature monitoring device means an instrument used to monitor temperature and having a minimum accuracy of plus or minus 2 percent of the temperature being monitored expressed in degrees C, or plus or minus 2.5 degrees C, whichever is greater. The temperature monitoring device may measure temperature in degrees Fahrenheit or degrees Celsius, or both.

Total organic compounds or TOC, as used in this subpart, means those compounds which can be measured according to the procedures of Method 18, 40 CFR part 60, appendix A.

Underground storage means the subsurface facilities utilized for storing natural gas that has been transferred from its original location for the primary purpose of load balancing, which is the process of equalizing the receipt and delivery of natural gas. Processes and operations that may be located at an underground storage facility include, but are not limited to, compression and dehydration.

[64 FR 32648, June 17, 1999, as amended at 66 FR 34555, June 29, 2001]

**4.** Paragraph 63.1272 Startups, shutdowns, and malfunctions.

(a) The provisions set forth in this subpart shall apply at all times except during startups or shutdowns, during malfunctions, and during periods of non-operation of the affected sources (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies. However, during the startup, shutdown, malfunction, or period of non-operation of one portion of an affected source, all emission points which can comply with the specific provisions to which they are subject must do so during the startup, shutdown, malfunction, or period of non-operation.

(b) The owner or operator shall not shut down items of equipment that are required or utilized for compliance with the provisions of this subpart during times when emissions are being routed to such items of equipment, if the shutdown would contravene requirements of this subpart applicable to such items of equipment. This paragraph does not apply if the item of equipment is malfunctioning, or if the owner or operator must shut down the equipment to avoid damage due to a contemporaneous startup, shutdown, or malfunction of the affected source or a portion thereof.

(c) During startups, shutdowns, and malfunctions when the requirements of this subpart do not apply pursuant to paragraphs (a) and (b) of this section, the owner or operator shall implement, to the extent reasonably available, measures to prevent or minimize excess emissions to the maximum extent practical. For purposes of this paragraph, the term "excess emissions" means emissions in excess of those that would have occurred if there were no startup, shutdown, or malfunction, and the owner or operator complied with the relevant provisions of this subpart. The measures to be taken shall be identified in the applicable startup, shutdown, and malfunction plan, and may include, but are not limited to, air pollution control technologies, recovery technologies, work practices, pollution prevention, monitoring, and/or changes in the manner of operation of the source. Back-up control devices are not required, but may be used if available.

(d) Except as provided in paragraph (e) of this section, the owner or operator shall prepare a startup, shutdown, or malfunction plan as required in Paragraph 63.6(e)(3), except that the plan is not required to be incorporated by reference into the source's title V permit as specified in Paragraph 63.6(e)(3)(i). Instead, the owner or operator shall keep the plan on record as required by Paragraph 63.6(e)(3)(v). The failure of the plan to adequately minimize emissions during the startup, shutdown, or malfunction does not shield an owner or operator from enforcement actions.

(e) Owners or operators are exempt from the requirements to prepare a startup, shutdown, or malfunction plan for any facility where all of the affected sources meet the exemption criteria specified in Paragraph 63.1274(d).

[64 FR 32648, June 17, 1999, as amended at 66 FR 34555, June 29, 2001]

**5.** Paragraph 63.1273 Reserved

## A. State and Federally Enforcable Section (continued)

**6.** Paragraph 63.1274 General standards.

(a) Table 2 of this subpart specifies the provisions of subpart A (General Provisions) that apply and those that do not apply to owners and operators of affected sources subject to this subpart.

(b) All reports required under this subpart shall be sent to the Administrator at the appropriate address listed in Paragraph 63.13. Reports may be submitted on electronic media.

(c) Except as specified in paragraph (d) of this section, the owner or operator of an affected source (i.e., glycol dehydration unit) located at an existing or new major source of HAP emissions shall comply with the requirements in this subpart as follows:

(1) The control requirements for glycol dehydration unit process vents specified in Paragraph 63.1275;

(2) The monitoring requirements specified in Paragraph 63.1283, and

(3) The recordkeeping and reporting requirements specified in Paragraph 63.1284 and 63.1285.

(d) Exemptions. The owner or operator is exempt from the requirements of paragraph (c) of this section if the criteria listed in paragraph (d)(1) or (2) of this section are met, except that the records of the determination of these criteria must be maintained as required in Paragraph 63.1284(d).

(1) The actual annual average flow of gas to the glycol dehydration unit is less than 283.0 thousand standard cubic meters per day, as determined by the procedures specified in Paragraph 63.1282(a)(1); or

(2) The actual average emissions of benzene from the glycol dehydration unit process vents to the atmosphere are less than 0.90 megagram per year as determined by the procedures specified in Paragraph 63.1282(a)(2) of this subpart.

(e) Each owner or operator of a major HAP source subject to this subpart is required to apply for a part 70 or part 71 operating permit from the appropriate permitting authority. If the Administrator has approved a State operating permit program under part 70, the permit shall be obtained from the State authority. If a State operating permit program has not been approved, the owner or operator shall apply to the EPA Regional Office pursuant to part 71.

(f) [Reserved]

(g) In all cases where the provisions of this subpart require an owner or operator to repair leaks by a specified time after the leak is detected, it is a violation of this standard to fail to take action to repair the leak(s) within the specified time. If action is taken to repair the leak(s) within the specified time, failure of that action to successfully repair the leak(s) is not a violation of this standard. However, if the repairs are unsuccessful, a leak is detected and the owner or operator shall take further action as required by the applicable provisions of this subpart.

[64 FR 32648, June 17, 1999, as amended at 66 FR 34556, June 29, 2001]

## A. State and Federally Enforcable Section (continued)

**7.** Paragraph 63.1275 Glycol dehydration unit process vent standards.

(a) This section applies to each glycol dehydration unit subject to this subpart with an actual annual average natural gas flowrate equal to or greater than 283.0 thousand standard cubic meters per day and with actual average benzene glycol dehydration unit process vent emissions equal to or greater than 0.90 megagrams per year.

(b) Except as provided in paragraph (c) of this section, an owner or operator of a glycol dehydration unit process vent shall comply with the requirements specified in paragraphs (b)(1) and (b)(2) of this section.

(1) For each glycol dehydration unit process vent, the owner or operator shall control air emissions by either paragraph (b)(1)(i) or (b)(1)(ii) of this section.

(i) The owner or operator shall connect the process vent to a control device or a combination of control devices through a closed-vent system. The closed-vent system shall be designed and operated in accordance with the requirements of Paragraph 63.1281(c). The control device(s) shall be designed and operated in accordance with the requirements of Paragraph 63.1281(d).

(ii) The owner or operator shall connect the process vent to a control device or a combination of control devices through a closed-vent system and the outlet benzene emissions from the control device(s) shall be less than 0.90 megagrams per year. The closed-vent system shall be designed and operated in accordance with the requirements of Paragraph 63.1281(c). The control device(s) shall be designed and operated in accordance with the requirements of Paragraph 63.1281(d), except that the performance requirements specified in Paragraph 63.1281(d)(1)(i) and (ii) do not apply.

(2) One or more safety devices that vent directly to the atmosphere may be used on the air emission control equipment installed to comply with paragraph (b)(1) of this section.

(c) As an alternative to the requirements of paragraph (b) of this section, the owner or operator may comply with one of the following:

(1) The owner or operator shall control air emissions by connecting the process vent to a process natural gas line.

(2) The owner or operator shall demonstrate, to the Administrator's satisfaction, that the total HAP emissions to the atmosphere from the glycol dehydration unit process vent are reduced by 95.0 percent through process modifications or a combination of process modifications and one or more control devices, in accordance with the requirements specified in ? 63.1281(e).

(3) Control of HAP emissions from a GCG separator (flash tank) vent is not required if the owner or operator demonstrates, to the Administrator's satisfaction, that total emissions to the atmosphere from the glycol dehydration unit process vent are reduced by one of the levels specified in paragraph (c)(3)(i) or (ii) through the installation and operation of controls as specified in paragraph (b)(1) of this section.

(i) HAP emissions are reduced by 95.0 percent or more.

(ii) Benzene emissions are reduced to a level less than 0.90 megagrams per year.

[64 FR 32648, June 17, 1999, as amended at 66 FR 34556, June 29, 2001]

**8.** Paragraph 63.1276 - 63.1280 Reserved

## A. State and Federally Enforcable Section (continued)

**9.** Paragraph 63.1281 Control equipment requirements.

(a) This section applies to each closed-vent system and control device installed and operated by the owner or operator to control air emissions as required by the provisions of this subpart. Compliance with paragraphs (c) and (d) of this section will be determined by review of the records required by Paragraph 63.1284, the reports required by Paragraph 63.1285, by review of performance test results, and by inspections.

(b) [Reserved]

(c) Closed-vent system requirements. (1) The closed-vent system shall route all gases, vapors, and fumes emitted from the material in a HAP emissions unit to a control device that meets the requirements specified in paragraph (d) of this section.

(2) The closed-vent system shall be designed and operated with no detectable emissions.

(3) If the closed-vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device, the owner or operator shall meet the requirements specified in paragraphs (c)(3)(i) and (c)(3)(ii) of this section.

(i) For each bypass device, except as provided for in paragraph (c)(3)(ii) of this section, the owner or operator shall either:

(A) Properly install, calibrate, maintain, and operate a flow indicator at the inlet to the bypass device that could divert the stream away from the control device to the atmosphere that takes a reading at least once every 15 minutes, and that sounds an alarm when the bypass device is open such that the stream is being, or could be, diverted away from the control device to the atmosphere; or

(B) Secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration. The owner or operator shall visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass device.

(ii) Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of paragraph (c)(3)(i) of this section.

(d) Control device requirements. (1) The control device used to reduce HAP emissions in accordance with the standards of this subpart shall be one of the control devices specified in paragraphs (d)(1)(i) through (iii) of this section.

(i) An enclosed combustion device (e.g., thermal vapor incinerator, catalytic vapor incinerator, boiler, or process heater) that is designed and operated in accordance with one of the following performance requirements:

(A) Reduces the mass content of either TOC or total HAP in the gases vented to the device by 95.0 percent by weight or greater, as determined in accordance with the requirements of Paragraph 63.1282(d);

(B) Reduces the concentration of either TOC or total HAP in the exhaust gases at the outlet to the device to a level equal to or less than 20 parts per million by volume on a dry basis corrected to 3 percent oxygen as determined in accordance with the requirements of Paragraph 63.1282(d); or

## A. State and Federally Enforcable Section (continued)

(C) Operates at a minimum residence time of 0.5 second at a minimum temperature of 760 degree C.

(D) If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater.

(ii) A vapor recovery device (e.g., carbon adsorption system or condenser) or other control device that is designed and operated to reduce the mass content of either TOC or total HAP in the gases vented to the device by 95.0 percent by weight or greater as determined in accordance with the requirements of Paragraph 63.1282(d).

(iii) A flare that is designed and operated in accordance with the requirements of Paragraph 63.11(b).

(2) [Reserved]

(3) The owner or operator shall demonstrate that a control device achieves the performance requirements of paragraph (d)(1) of this section by following the procedures specified in Paragraph 63.1282(d).

(4) The owner or operator shall operate each control device in accordance with the requirements specified in paragraphs (d)(4)(i) and (ii) of this section.

(i) Each control device used to comply with this subpart shall be operating at all times when gases, vapors, and fumes are vented from the emissions unit or units through the closed-vent system to the control device, as required under Paragraph 63.1275, except when maintenance or repair of a unit cannot be completed without a shutdown of the control device. An owner or operator may vent more than one unit to a control device used to comply with this subpart.

(ii) For each control device monitored in accordance with the requirements of Paragraph 63.1283(d), the owner or operator shall demonstrate compliance according to the requirements of Paragraph 63.1282(e), or (f) as applicable.

(5) For each carbon adsorption system used as a control device to meet the requirements of paragraph (d)(1) of this section, the owner or operator shall manage the carbon as follows:

## A. State and Federally Enforcable Section (continued)

(i) Following the initial startup of the control device, all carbon in the control device shall be replaced with fresh carbon on a regular, predetermined time interval that is no longer than the carbon service life established for the carbon adsorption system.

ii) The spent carbon removed from the carbon adsorption system shall be either regenerated, reactivated, or burned in one of the units specified in paragraphs (d)(5)(ii)(A) through (d)(5)(ii)(G) of this section.

(A) Regenerated or reactivated in a thermal treatment unit for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 264, subpart X.

(B) Regenerated or reactivated in a thermal treatment unit equipped with and operating organic air emission controls in accordance with this section.

(C) Regenerated or reactivated in a thermal treatment unit equipped with and operating organic air emission controls in accordance with a national emissions standard for HAP under another subpart in 40 CFR part 61 or this part.

(D) Burned in a hazardous waste incinerator for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 264, subpart O.

(E) Burned in a hazardous waste incinerator which the owner or operator has designed and operates in accordance with the requirements of 40 CFR part 265, subpart O.

(F) Burned in a boiler or industrial furnace for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 266, subpart H.

(G) Burned in a boiler or industrial furnace which the owner or operator has designed and operates in accordance with the interim status requirements of 40 CFR part 266, subpart H.

(e) Process modification requirements. Each owner or operator that chooses to comply with Paragraph 63.1275(c)(2) shall meet the requirements specified in paragraphs (e)(1) through (e)(3) of this section.

(1) The owner or operator shall determine glycol dehydration unit baseline operations (as defined in Paragraph 63.1271). Records of glycol dehydration unit baseline operations shall be retained as required under Paragraph 63.1284(b)(9).

(2) The owner or operator shall document, to the Administrator's satisfaction, the conditions for which glycol dehydration unit baseline operations shall be modified to achieve the 95.0 percent overall HAP emission reduction, either through process modifications or through a combination of process modifications and one or more control devices. If a combination of process modifications and one or more control devices are used, the owner or operator shall also establish the percent HAP reduction to be achieved by the control device to achieve an overall HAP emission reduction of 95.0 percent for the glycol dehydration unit process vent. Only modifications in glycol dehydration unit operations directly related to process changes, including but not limited to changes in glycol circulation rate or glycol-HAP absorbency, shall be allowed. Changes in the inlet gas characteristics or natural gas throughput rate shall not be considered in determining the overall HAP emission reduction due to process modifications.

(3) The owner or operator that achieves a 95.0 percent HAP emission reduction using process modifications alone shall comply with paragraph (e)(3)(i) of this section. The owner or operator that achieves a 95.0 percent HAP emission reduction using a combination of process modifications and one or more control devices shall comply with paragraphs (e)(3)(i) and (e)(3)(ii) of this section.

## A. State and Federally Enforcable Section (continued)

(i) The owner or operator shall maintain records, as required in Paragraph 63.1284(b)(10), that the facility continues to operate in accordance with the conditions specified under paragraph (e)(2) of this section.

(ii) The owner or operator shall comply with the control device requirements specified in paragraph (d) of this section, except that the emission reduction achieved shall be the emission reduction specified in paragraph (e)(2) of this section.

[64 FR 32648, June 17, 1999, as amended at 66 FR 34556, June 29, 2001]

**10.** Paragraph 63.1282 Test methods, compliance procedures, and compliance demonstrations.

(a) Determination of glycol dehydration unit flowrate or benzene emissions. The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit natural gas flowrate or benzene emissions to meet the criteria for the exemption from control requirements under Paragraph 63.1274(d).

(1) The determination of actual flowrate of natural gas to a glycol dehydration unit shall be made using the procedures of either paragraph (a)(1)(i) or (a)(1)(ii) of this section.

(i) The owner or operator shall install and operate a monitoring instrument that directly measures natural gas flowrate to the glycol dehydration unit with an accuracy of plus or minus 2 percent or better. The owner or operator shall convert the annual natural gas flowrate to a daily average by dividing the annual flowrate by the number of days per year the glycol dehydration unit processed natural gas.

(ii) The owner or operator shall document, to the Administrator's satisfaction, that the actual annual average natural gas flowrate to the glycol dehydration unit is less than 283.0 thousand standard cubic meters per day.

(2) The determination of actual average benzene emissions from a glycol dehydration unit shall be made using the procedures of either paragraph (a)(2)(i) or (a)(2)(ii) of this section. Emissions shall be determined either uncontrolled or with federally enforceable controls in place.

(i) The owner or operator shall determine actual average benzene emissions using the model GRI-GLYCalcTM, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalcTM Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1); or

(ii) The owner or operator shall determine an average mass rate of benzene emissions in kilograms per hour through direct measurement by performing three runs of Method 18 in 40 CFR part 60, appendix A (or an equivalent method), and averaging the results of the three runs. Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year.

(b) No detectable emissions test procedure. (1) The procedure shall be conducted in accordance with Method 21, 40 CFR part 60, appendix A.

(2) The detection instrument shall meet the performance criteria of Method 21, 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 fluid, and not for each individual organic compound in the stream.

(3) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21, 40 CFR part 60, appendix A.

## A. State and Federally Enforcable Section (continued)

(4) Calibration gases shall be as follows:

(i) Zero air (less than 10 parts per million by volume hydrocarbon in air); and

(ii) A mixture of methane in air at a methane concentration of less than 10,000 parts per million by volume.

(5) An owner or operator may choose to adjust or not adjust the detection instrument readings to account for the background organic concentration level. If an owner or operator chooses to adjust the instrument readings for the background level, the background level value must be determined according to the procedures in Method 21 of 40 CFR part 60, appendix A.

(6)(i) Except as provided in paragraph (b)(6)(ii) of this section, 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 HAP or VOC, the average stream response factor shall be calculated on an inert-free basis.

(ii) If no instrument is available at the facility that will meet the performance criteria specified in paragraph (b)(6)(i) of this section, 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 paragraph (b)(6)(i) of this section.

(7) An owner or operator must determine if a potential leak interface operates with no detectable emissions using the applicable procedure specified in paragraph (b)(7)(i) or (b)(7)(ii) of this section.

(i) If an owner or operator chooses not to adjust the detection instrument readings for the background organic concentration level, then the maximum organic concentration value measured by the detection instrument is compared directly to the applicable value for the potential leak interface as specified in paragraph (b)(8) of this section.

(ii) If an owner or operator chooses to adjust the detection instrument readings for the background organic concentration level, the value of the arithmetic difference between the maximum organic concentration value measured by the instrument and the background organic concentration value as determined in paragraph (b)(5) of this section is compared with the applicable value for the potential leak interface as specified in paragraph (b)(8) of this section.

(8) A potential leak interface is determined to operate with no detectable organic emissions if the organic concentration value determined in paragraph (b)(7) is less than 500 parts per million by volume.

(c) [Reserved]

(d) Control device performance test procedures. This paragraph applies to the performance testing of control devices. The owners or operators shall demonstrate that a control device achieves the performance requirements of Paragraph 63.1281(d)(1) or (e)(3)(ii) using either a performance test as specified in paragraph (d)(3) of this section or a design analysis as specified in paragraph (d)(4) of this section. The owner or operator may elect to use the alternative procedures in paragraph (d)(5) of this section for performance testing of a condenser used to control emissions from a glycol dehydration unit process vent.

(1) The following control devices are exempt from the requirements to conduct performance tests and design analyses under this section:

(i) Except as specified in paragraph (d)(2) of this section, a flare that is designed and operated in accordance with Paragraph 63.11(b);

**A. State and Federally Enforcable Section (continued)**

(ii) A boiler or process heater with a design heat input capacity of 44 megawatts or greater;

(iii) A boiler or process heater into which the vent stream is introduced with the primary fuel or is used as the primary fuel;

(iv) A boiler or process heater burning hazardous waste for which the owner or operator has either been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H, or has certified compliance with the interim status requirements of 40 CFR part 266, subpart H;

(v) A hazardous waste incinerator for which the owner or operator has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 264, subpart O, or has certified compliance with the interim status requirements of 40 CFR part 265, subpart O.

(vi) A control device for which a performance test was conducted for determining compliance with a regulation promulgated by the EPA, and the test was conducted using the same methods specified in this section, and either no process changes have been made since the test, or the owner or operator can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes.

(2) An owner or operator shall design and operate each flare in accordance with the requirements specified in Paragraph 63.11(b) and in paragraphs (d)(2)(i) and (d)(2)(ii) of this section.

(i) The compliance determination shall be conducted using Method 22 of 40 CFR part 60, appendix A, to determine visible emissions.

(ii) An owner or operator is not required to conduct a performance test to determine percent emission reduction or outlet organic HAP or TOC concentration when a flare is used.

(3) For a performance test conducted to demonstrate that a control device meets the requirements of Paragraph 63.1281(d)(1) or (e)(3)(ii), the owner or operator shall use the test methods and procedures specified in paragraphs (d)(3)(i) through (iv) of this section. The performance test results shall be submitted in the Notification of Compliance Status Report as required in Paragraph 63.1285(d)(1)(ii).

(i) Method 1 or 1A, 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling sites specified in paragraphs (d)(3)(i)(A) and (B) of this section. Any references to particulate mentioned in Methods 1 and 1A do not apply to this section.

(A) To determine compliance with the control device percent reduction requirements specified in Paragraph 63.1281(d)(1)(i)(A),(d)(1)(ii), or (e)(3)(ii), sampling sites shall be located at the inlet of the first control device and at the outlet of the final control device.

(B) To determine compliance with the enclosed combustion device total HAP concentration limit specified in Paragraph 63.1281(d)(1)(i)(B), the sampling site shall be located at the outlet of the device.

(ii) The gas volumetric flowrate shall be determined using Method 2, 2A, 2C, or 2D, 40 CFR part 60, appendix A, as appropriate.

(iii) To determine compliance with the control device percent reduction performance requirement in Paragraph 63.1281(d)(1)(i)(A), 63.1281(d)(1)(ii), or 63.1281(e)(3)(ii), the owner or operator shall use either Method 18, 40 CFR part 60, appendix A, or Method 25A, 40 CFR part 60, appendix A; alternatively, any other method or data that have been validated according to the applicable procedures in Method 301 of appendix A of this part may be used. The following procedures shall be used to calculate the percentage of reduction:

## A. State and Federally Enforcable Section (continued)

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

(B) The mass rate of either TOC (minus methane and ethane) or total HAP (Ei, Eo) shall be computed using the equations and procedures specified in paragraphs (d)(3)(iii)(B)(1) through (3) of this section. As an alternative, the mass rate of either TOC (minus methane and ethane) or total HAP at the inlet of the control device (Ei) may be calculated using the procedures specified in paragraph (d)(3)(iii)(B)(4) of this section.

(1) The following equations shall be used:

Ei = K2 [Sum (j=1 to n) of (Cij)(Mij)] Qi

Eo = K2 [Sum (j=1 to n) of (Coj)(Moj)] Qi

Where:

Cij, Coj = Concentration of sample component j of the gas stream at the inlet and outlet of the control device, respectively, dry basis, parts per million by volume.

Ei, Eo = Mass rate of TOC (minus methane and ethane) or total HAP at the inlet and outlet of the control device, respectively, dry basis, kilogram per hour.

Mij, Moj = Molecular weight of sample component j of the gas stream at the inlet and outlet of the control device, respectively, gram/gram-mole.

Qi, Qo = Flowrate of gas stream at the inlet and outlet of the control device, respectively, dry standard cubic meter per minute.

K2 = Constant, 2.494x10-6 (parts per million)-1 (gram-mole per standard cubic meter) (kilogram/gram) (minute/hour), where standard temperature is 20 degree C.

n = Number of components in sample.

(2) When the TOC mass rate is calculated, all organic compounds (minus methane and ethane) measured by Method 18, of 40 CFR part 60, appendix A; or Method 25A, 40 CFR part 60, appendix A, shall be summed using the equations in paragraph (d)(3)(iii)(B)(1) of this section.

## A. State and Federally Enforcable Section (continued)

(3) When the total HAP mass rate is calculated, only HAP chemicals listed in Table 1 of this subpart shall be summed using the equations in paragraph (d)(3)(iii)(B)(1) of this section.

(4) As an alternative to the procedures for calculating Ei specified in paragraph (d)(3)(iii)(B)(1) of this section, the owner or operator may use the model GRI-GLYCalcTM, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalcTM Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and shall be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1). When the TOC mass rate is calculated for glycol dehydration units using the model GRI-GLYCalcTM, all organic compounds (minus methane and ethane) measured by Method 18, 40 CFR part 60, appendix A, or Method 25A, 40 CFR part 60, appendix A, shall be summed. When the total HAP mass rate is calculated for glycol dehydration units using the model GRI-GLYCalcTM, only HAP chemicals listed in Table 1 of this subpart shall be summed.

(C) The percentage of reduction in TOC (minus methane and ethane) or total HAP shall be calculated as follows:

Rcd = (Ei - Eo)/Ei x 100%

Where:

Rcd = Control efficiency of control device, percent.

Ei = Mass rate of TOC (minus methane and ethane) or total HAP at the inlet to the control device as calculated under paragraph (d)(3)(iii)(B) of this section, kilograms TOC per hour or kilograms HAP per hour.

Eo = Mass rate of TOC (minus methane and ethane) or total HAP at the outlet of the control device, as calculated under paragraph (d)(3)(iii)(B) of this section, kilograms TOC per hour or kilograms HAP per hour.

## A. State and Federally Enforcable Section (continued)

(D) If the vent stream entering a boiler or process heater with a design capacity less than 44 megawatts is introduced with the combustion air or as a secondary fuel, the weight-percentage of reduction of total HAP or TOC (minus methane and ethane) across the device shall be determined by comparing the TOC (minus methane and ethane) or total HAP in all combusted vent streams and primary and secondary fuels with the TOC (minus methane and ethane) or total HAP exiting the device, respectively.

(iv) To determine compliance with the enclosed combustion device total HAP concentration limit specified in Paragraph 63.1281(d)(1)(i)(B), the owner or operator shall use either Method 18, 40 CFR part 60, appendix A; or Method 25A, 40 CFR part 60, appendix A, to measure either TOC (minus methane and ethane) or total HAP. Alternatively, any other method or data that have been validated according to Method 301 of appendix A of this part, may be used. The following procedures shall be used to calculate parts per million by volume concentration, corrected to 3 percent oxygen:

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

(B) The TOC concentration or total HAP concentration shall be calculated according to paragraph (d)(3)(iv)(B)(1) or (d)(3)(iv)(B)(2) of this section.

(1) The TOC concentration (CTOC) is the sum of the concentrations of the individual components and shall be computed for each run using the following equation:

Ctoc = Sum (i =1 to x) of [(Sum (j=1 to n) of Cji) / X]

Where:
CTOC = Concentration of total organic compounds minus methane and ethane, dry basis, parts per million by volume.

Cji = Concentration of sample components j of sample i, dry basis, parts per million by volume.

## A. State and Federally Enforcable Section (continued)

n = Number of components in the sample.

x = Number of samples in the sample run.

(2) The total HAP concentration (CHAP) shall be computed according to the equation in paragraph (d)(3)(iv)(B)(1) of this section, except that only HAP chemicals listed in Table 1 of this subpart shall be summed.

(C) The TOC concentration or total HAP concentration shall be corrected to 3 percent oxygen as follows:

(1) The emission rate correction factor for excess air, integrated sampling and analysis procedures of Method 3B, 40 CFR part 60, appendix A, shall be used to determine the oxygen concentration (%O2d). The samples shall be taken during the same time that the samples are taken for determining TOC concentration or total HAP concentration.

(2) The concentration corrected to 3 percent oxygen (Cc) shall be computed using the following equation:

Cc = Cm [17.9/(20.9 - %O2d)]

Where:

Cc = TOC concentration of total HAP concentration corrected to 3 percent oxygen, dry basis, parts per million by volume.

Cm = TOC concentration or total HAP concentration, dry basis, parts per million by volume.

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

(4) For a design analysis conducted to meet the requirements of Paragraph 63.1281(d)(1) or (e)(3)(ii), the owner or operator shall meet the requirements specified in paragraphs (d)(4)(i) and (d)(4)(ii) of this section. Documentation of the design analysis shall be submitted as a part of the Notification of Compliance Status Report as required in Paragraph 63.1285(d)(1)(i).

(i) The design analysis shall include analysis of the vent stream characteristics and control device operating parameters for the applicable control device as specified in paragraphs (d)(4)(i) (A) through (F) of this section.

(A) For a thermal vapor incinerator, the design analysis shall include the vent stream composition, constituent concentrations, and flowrate and shall establish the design minimum and average temperatures in the combustion zone and the combustion zone residence time.

(B) For a catalytic vapor incinerator, the design analysis shall include the vent stream composition, constituent concentrations, and flowrate and shall establish the design minimum and average temperatures across the catalyst bed inlet and outlet, and the design service life of the catalyst.

(C) For a boiler or process heater, the design analysis shall include the vent stream composition, constituent concentrations, and flowrate; shall establish the design minimum and average flame zone temperatures and combustion zone residence time; and shall describe the method and location where the vent stream is introduced into the flame zone.

## A. State and Federally Enforcable Section (continued)

(D) For a condenser, the design analysis shall include the vent stream composition, constituent concentrations, flowrate, relative humidity, and temperature, and shall establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream, and the design average temperatures of the coolant fluid at the condenser inlet and outlet. As an alternative to the design analysis, an owner or operator may elect to use the procedures specified in paragraph (d)(5) of this section.

(E) For a regenerable carbon adsorption, the design analysis shall include the vent stream composition, constituent concentrations, flowrate, relative humidity, and temperature, and shall establish the design exhaust vent stream organic compound concentration level, adsorption cycle time, number and capacity of carbon beds, type and working capacity of activated carbon used for the carbon beds, design total regeneration stream flow over the period of each complete carbon bed regeneration cycle, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of the carbon.

(F) For a nonregenerable carbon adsorption system, such as a carbon canister, the design analysis shall include the vent stream composition, constituent concentrations, flowrate, relative humidity, and temperature, and shall establish the design exhaust vent stream organic compound concentration level, capacity of the carbon bed, type and working capacity of activated carbon used for the carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule. In addition, these systems will incorporate dual carbon canisters in case of emission breakthrough occurring in one canister.

(ii) If the owner or operator and the Administrator do not agree on a demonstration of control device performance using a design analysis, then the disagreement shall be resolved using the results of a performance test performed by the owner or operator in accordance with the requirements of paragraph (d)(3) of this section. The Administrator may choose to have an authorized representative observe the performance test.

(5) As an alternative to the procedures in paragraphs (d)(3) and (d)(4)(i)(D) of this section, an owner or operator may elect to use the procedures documented in the GRI report entitled, "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions," (GRI-95/0368.1) as inputs for the model GRI-GLYCalcTM, Version 3.0 or higher, to determine condenser performance.

(e) Compliance demonstration for control devices performance requirements. This paragraph applies to the demonstration of compliance with the control device performance requirements specified in Paragraph 63.1281(d)(1) and (e)(3)(ii). Compliance shall be demonstrated using the requirements in paragraphs (e)(1) through (3) of this section. As an alternative, an owner or operator that installs a condenser as the control device to achieve the requirements specified in Paragraph 63.1281(d)(1)(ii) or (e)(3)(ii) may demonstrate compliance according to paragraph (f) of this section. An owner or operator may switch between compliance with paragraph (e) of this section and compliance with paragraph (f) of this section only after at least 1 year of operation in compliance with the selected approach. Notification of such a change in the compliance method shall be reported in the next Periodic Report, as required in Paragraph 63.1285(e), following the change.

## A. State and Federally Enforcable Section (continued)

(1) The owner or operator shall establish a site specific maximum or minimum monitoring parameter value (as appropriate) according to the requirements of Paragraph 63.1283(d)(5)(i).

(2) The owner or operator shall calculate the daily average of the applicable monitored parameter in accordance with Paragraph 63.1283(d)(4).

(3) Compliance is achieved when the daily average of the monitoring parameter value calculated under paragraph (e)(2) of this section is either equal to or greater than the minimum or equal to or less than the maximum monitoring value established under paragraph (e)(1) of this section.

(f) Compliance demonstration with percent reduction performance requirements -- condensers. This paragraph applies to the demonstration of compliance with the performance requirements specified in Paragraph 63.1281(d)(1)(ii) for condensers. Compliance shall be demonstrated using the procedures in paragraphs (f)(1) through (f)(3) of this section.

(1) The owner or operator shall establish a site-specific condenser performance curve according to the procedures specified in Paragraph 63.1283(d)(5)(ii).

(2) Compliance with the percent reduction requirement in Paragraph 63.1281(d)(1)(ii) or (e)(3) shall be demonstrated by the procedures in paragraphs (f)(2)(i) through (iii) of this section.

(i) The owner or operator must calculate the daily average condenser outlet temperature in accordance with Paragraph 63.1283(d)(4).

(ii) The owner or operator shall determine the condenser efficiency for the current operating day using the daily average condenser outlet temperature calculated in paragraph (f)(2)(i) of this section and the condenser performance curve established in paragraph (f)(1) of this section.

(iii) Except as provided in paragraphs (f)(2)(iii)(A), (B), and (D) of this section, at the end of each operating day the owner or operator shall calculate the 30-day average HAP emission reduction from the condenser efficiencies as determined in paragraph (f)(2)(ii) of this section for the preceding 30 operating days. If the owner or operator uses a combination of process modifications and a condenser in accordance with the requirements of Paragraph 63.1281(e), the 30-day average HAP emission reduction shall be calculated using the emission reduction achieved through process modifications and the condenser efficiency as determined in paragraph (f)(2)(ii) of this section, both for the preceding 30 operating days.

(A) After the compliance date specified in Paragraph 63.1270(d), an owner or operator of a facility that stores natural gas that has less than 30 days of data for determining the average HAP emission reduction shall calculate the cumulative average at the end of the withdrawal season, each season, until 30 days of condenser operating data are accumulated. For a facility that does not store natural gas, the owner or operator that has less than 30 days of data for determining average HAP emission reduction shall calculate the cumulative average at the end of the calendar year, each year, until 30 days of condenser operating data are accumulated.

(B) After the compliance date specified in Paragraph 63.1270(d), for an owner or operator that has less than 30 days of data for determining the average HAP emission reduction, compliance is achieved if the average HAP emission reduction calculated in paragraph (f)(2)(iii)(A) of this section is equal to or greater than 95.0 percent.

(C) For the purposes of this subpart, a withdrawal season begins the first time gas is withdrawn from the storage field after July 1 of the calendar year and ends on June 30 of the next calendar year.

## A. State and Federally Enforcable Section (continued)

(D) Glycol dehydration units that are operated continuously have the option of complying with the requirements specified in 40 CFR 63.772(g).

(3) Compliance is achieved with the emission limitation specified in Paragraph 63.1281(d)(1)(ii) or (e)(3) if the average HAP emission reduction calculated in paragraph (f)(2)(iii) of this section is equal to or greater than 95.0 percent.

[64 FR 32648, June 17, 1999, as amended at 66 FR 34556, June 29, 2001]

**11.** Paragraph 63.1283 Inspection and monitoring requirements.

(a) This section applies to an owner or operator using air emission controls in accordance with the requirements of Paragraph 63.1275.

(b) [Reserved]

(c) Closed-vent system inspection and monitoring requirements. (1) For each closed-vent system required to comply with this section, the owner or operator shall comply with the requirements of paragraphs (c)(2) through (7) of this section.

(2) Except as provided in paragraphs (c) (5) and (6) of this section, each closed-vent system shall be inspected according to the procedures and schedule specified in paragraphs (c)(2) (i) and (ii) of this section.

(i) For each closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted or gasketed ducting flange), the owner or operator shall:

(A) Conduct an initial inspection according to the procedures specified in Paragraph 63.1282(b) to demonstrate that the closed-vent system operates with no detectable emissions. Inspection results shall be submitted with the Notification of Compliance Status Report as specified in Paragraph 63.1285(d)(1) or (2).

(B) Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; or broken or missing caps or other closure devices. The owner or operator shall monitor a component or connection using the procedures specified in Paragraph 63.1282(b) to demonstrate that it operates with no detectable emissions following any time the component or connection is repaired or replaced or the connection is unsealed. Inspection results shall be submitted in the Periodic Report as specified in Paragraph 63.1285(e)(2)(iii).

## A. State and Federally Enforcable Section (continued)

(ii) For closed-vent system components other than those specified in paragraph (c)(2)(i) of this section, the owner or operator shall:

(A) Conduct an initial inspection according to the procedures specified in Paragraph 63.1282(b) to demonstrate that the closed-vent system operates with no detectable emissions. Inspection results shall be submitted with the Notification of Compliance Status Report as specified in Paragraph 63.1285(d)(1) or (2).

(B) Conduct annual inspections according to the procedures specified in Paragraph 63.1282(b) to demonstrate that the components or connections operate with no detectable emissions. Inspection results shall be submitted in the Periodic Report as specified in Paragraph 63.1285(e)(2)(iii).

(C) Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork; loose connections; or broken or missing caps or other closure devices. Inspection results shall be submitted in the Periodic Report as specified in Paragraph 63.1285(e)(2)(iii).

(3) In the event that a leak or defect is detected, the owner or operator shall repair the leak or defect as soon as practicable, except as provided in paragraph (c)(4) of this section.

(i) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(ii) Repair shall be completed no later than 15 calendar days after the leak is detected.

(4) Delay of repair of a closed-vent system for which leaks or defects have been detected is allowed if the repair is technically infeasible without a shutdown, as defined in Paragraph 63.1271, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next shutdown.

(5) Any parts of the closed-vent system or cover that are designated, as described in paragraphs (c)(5) (i) and (ii) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (c)(2) (i) and (ii) of this section if:

(i) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraph (c)(2) (i) or (ii) of this section; and

(ii) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

(6) Any parts of the closed-vent system or cover that are designated, as described in paragraphs (c)(6) (i) and (ii) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (c)(2) (i) and (ii) of this section if:

(i) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

(ii) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years.

(7) Records shall be maintained as specified in Paragraph 63.1284(b)(5) through (8).

## A. State and Federally Enforcable Section (continued)

(d) Control device monitoring requirements. (1) For each control device except as provided for in paragraph (d)(2) of this section, the owner or operator shall install and operate a continuous parameter monitoring system in accordance with the requirements of paragraphs (d)(3) through (9) of this section that will allow a determination to be made whether the control device is achieving the applicable performance requirements of Paragraph 63.1281(d) or (e)(3). Owners or operators that install and operate a flare in accordance with Paragraph 63.1281(d)(1)(iii) are exempt from the requirements of paragraphs (d)(4) and (5) of this section. The continuous parameter monitoring system must meet the following specifications and requirements:

(i) Each continuous parameter monitoring system shall measure data values at least once every hour and record either:

(A) Each measured data value; or

(B) Each block average value for each 1-hour period or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values.

(ii) The monitoring system must be installed, calibrated, operated, and maintained in accordance with the manufacturer's specifications or other written procedures that provide reasonable assurance that the monitoring equipment is operating properly.

(2) An owner or operator is exempted from the monitoring requirements specified in paragraphs (d)(3) through (9) of this section for the following types of control devices:

(i) A boiler or process heater in which all vent streams are introduced with the primary fuel or are used as the primary fuel;

(ii) A boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts.

(3) The owner or operator shall install, calibrate, operate, and maintain a device equipped with a continuous recorder to measure the values of operating parameters appropriate for the control device as specified in either paragraph (d)(3)(i), (d)(3)(ii), or (d)(3)(iii) of this section.

(i) A continuous monitoring system that measures the following operating parameters as applicable:

(A) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The monitoring device shall have a minimum accuracy of plus or minus 2 percent of the temperature being monitored in degrees C, or plus or minus 2.5 degrees C, whichever value is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone.

## A. State and Federally Enforcable Section (continued)

(B) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperatures at two locations and have a minimum accuracy of plus or minus 2 percent of the temperatures being monitored in degrees C, or plus or minus 2.5 degrees C, whichever value is greater. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

(C) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.

(D) For a boiler or process heater with a design heat input capacity of less than 44 megawatts, a temperature monitoring device equipped with a continuous recorder. The temperature monitoring device shall have a minimum accuracy of plus or minus 2 percent of the temperature being monitored in degrees C, or plus or minus 2.5 degrees C, whichever value is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone.

(E) For a condenser, a temperature monitoring device equipped with a continuous recorder. The temperature monitoring device shall have a minimum accuracy of plus or minus 2 percent of the temperature being monitored in degrees C, or plus or minus 2.5 degrees C, whichever value is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser.

(F) For a regenerative-type carbon adsorption system:

(1) A continuous parameter monitoring system to measure and record the average total regeneration stream mass flow or volumetric flow during each carbon bed regeneration cycle. The integrating regenerating stream flow monitoring device must have an accuracy of plus or minus 10 percent; and

(2) A continuous parameter monitoring system to measure and record the average carbon bed temperature for the duration of the carbon bed steaming cycle and to measure the actual carbon bed temperature after regeneration and within 15 minutes of completing the cooling cycle. The temperature monitoring device shall have a minimum accuracy of plus or minus 2 percent of the temperature being monitored in degrees C, or plus or minus 2.5 degrees C, whichever value is greater.

(G) For a nonregenerative-type carbon adsorption system, the owner or operator shall monitor the design carbon replacement interval established using a performance test performed in accordance with Paragraph 63.1282(d)(3) or a design analysis in accordance with Paragraph 63.1282(d)(4)(i)(F) and shall be based on the total carbon working capacity of the control device and source operating schedule.

(ii) A continuous monitoring system that measures the concentration level of organic compounds in the exhaust vent stream from the control device using an organic monitoring device equipped with a continuous recorder. The monitor must meet the requirements of Performance Specification 8 or 9 of appendix B of 40 CFR part 60 and must be installed, calibrated, and maintained according to the manufacturer's specifications.

(iii) A continuous monitoring system that measures alternative operating parameters other than those specified in paragraph (d)(3)(i) or (d)(3)(ii) of this section upon approval of the Administrator as specified in Paragraph 63.8(f)(1) through (5).

## A. State and Federally Enforcable Section (continued)

(4) Using the data recorded by the monitoring system, the owner or operator must calculate the daily average value for each monitored operating parameter for each operating day. If HAP emissions unit operation is continuous, the operating day is a 24-hour period. If the HAP emissions unit operation is not continuous, the operating day is the total number of hours of control device operation per 24-hour period. Valid data points must be available for 75 percent of the operating hours in an operating day to compute the daily average.

(5) For each operating parameter monitored in accordance with the requirements of paragraph (d)(3) of this section, the owner or operator shall comply with paragraph (d)(5)(i) of this section for all control devices, and when condensers are installed, the owner or operator shall also comply with paragraph (d)(5)(ii) of this section for condensers.

(i) The owner or operator shall establish a minimum operating parameter value or a maximum operating parameter value, as appropriate for the control device, to define the conditions at which the control device must be operated to continuously achieve the applicable performance requirements of Paragraph 63.1281(d)(1) or (e)(3)(ii). Each minimum or maximum operating parameter value shall be established as follows:

(A) If the owner or operator conducts performance tests in accordance with the requirements of Paragraph 63.1282(d)(3) to demonstrate that the control device achieves the applicable performance requirements specified in Paragraph 63.1281(d)(1) or (e)(3)(ii), then the minimum operating parameter value or the maximum operating parameter value shall be established based on values measured during the performance test and supplemented, as necessary, by control device design analysis or control device manufacturer's recommendations or a combination of both.

(B) If the owner or operator uses a control device design analysis in accordance with the requirements of Paragraph 63.1282(d)(4) to demonstrate that the control device achieves the applicable performance requirements specified in Paragraph 63.1281(d)(1) or (e)(3)(ii), then the minimum operating parameter value or the maximum operating parameter value shall be established based on the control device design analysis and may be supplemented by the control device manufacturer's recommendations.

(ii) The owner or operator shall establish a condenser performance curve showing the relationship between condenser outlet temperature and condenser control efficiency. The curve shall be established as follows:

(A) If the owner or operator conducts a performance test in accordance with the requirements of Paragraph 63.1282(d)(3) to demonstrate that the condenser achieves the applicable performance requirements in Paragraph 63.1281(d)(1) or (e)(3)(ii), then the condenser performance curve shall be based on values measured during the performance test and supplemented as necessary by control device design analysis, or control device manufacturer's recommendations, or a combination or both.

(B) If the owner or operator uses a control device design analysis in accordance with the requirements of Paragraph 63.1282(d)(4)(i)(D) to demonstrate that the condenser achieves the applicable performance requirements specified in Paragraph 63.1281(d)(1) or (e)(3)(ii), then the condenser performance curve shall be based on the condenser design analysis and may be supplemented by the control device manufacturer's recommendations.

## A. State and Federally Enforcable Section (continued)

(C) As an alternative to paragraphs (d)(5)(ii)(A) and (B) of this section, the owner or operator may elect to use the procedures documented in the GRI report entitled, "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1) as inputs for the model GRI-GLYCalcTM, Version 3.0 or higher, to generate a condenser performance curve.

(6) An excursion for a given control device is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified in paragraphs (d)(6)(i) through (d)(6)(iv) of this section being met. When multiple operating parameters are monitored for the same control device and during the same operating day, and more than one of these operating parameters meets an excursion criterion specified in paragraphs (d)(6)(i) through (d)(6)(iv) of this section, then a single excursion is determined to have occurred for the control device for that operating day.

(i) An excursion occurs when the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit) established for the operating parameter in accordance with the requirements of paragraph (d)(5)(i) of this section.

(ii) An excursion occurs when average condenser efficiency calculated according to the requirements specified in Paragraph 63.1282(f)(2)(iii) is less than 95.0 percent, as specified in Paragraph 63.1282(f)(3).

(iii) An excursion occurs when the monitoring data are not available for at least 75 percent of the operating hours in a day.

(iv) If the closed-vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device, an excursion occurs when:

(A) For each bypass line subject to Paragraph 63.1281(c)(3)(i)(A) the flow indicator indicates that flow has been detected and that the stream has been diverted away from the control device to the atmosphere.

(B) For each bypass line subject to Paragraph 63.1281(c)(3)(i)(B), if the seal or closure mechanism has been broken, the bypass line valve position has changed, the key for the lock-and-key type lock has been checked out, or the car-seal has broken.

(7) For each excursion, except as provided for in paragraph (d)(8) of this section, the owner or operator shall be deemed to have failed to have applied control in a manner that achieves the required operating parameter limits. Failure to achieve the required operating parameter limits is a violation of this standard.

(8) An excursion is not a violation of the operating parameter limit as specified in paragraphs (d)(8)(i) and (d)(8)(ii) of this section.

(i) An excursion does not count toward the number of excused excursions allowed under paragraph (d)(8)(ii) of this section when the excursion occurs during any one of the following periods:

(A) During a period of startup, shutdown, or malfunction when the affected facility is operated during such period in accordance with the facility's startup, shutdown, and malfunction plan; or

(B) During periods of non-operation of the unit or the process that is vented to the control device (resulting in cessation of HAP emissions to which the monitoring applies).

**A. State and Federally Enforcable Section (continued)**

(ii) For each control device, or combinations of control devices, installed on the same HAP emissions unit, one excused excursion is allowed per semiannual period for any reason. The initial semiannual period is the 6-month reporting period addressed by the first Periodic Report submitted by the owner or operator in accordance with Paragraph 63.1285(e) of this subpart.

(9) Nothing in paragraphs (d)(1) through (d)(8) of this section shall be construed to allow or excuse a monitoring parameter excursion caused by any activity that violates other applicable provisions of this subpart.

[64 FR 32648, June 17, 1999, as amended at 66 FR 34557, June 29, 2001]

**12.** Paragraph 63.1284 Recordkeeping requirements.

(a) The recordkeeping provisions of subpart A of this part, that apply and those that do not apply to owners and operators of facilities subject to this subpart are listed in Table 2 of this subpart.

(b) Except as specified in paragraphs (c) and (d) of this section, each owner or operator of a facility subject to this subpart shall maintain the records specified in paragraphs (b)(1) through (b)(10) of this section:

(1) The owner or operator of an affected source subject to the provisions of this subpart shall maintain files of all information (including all reports and notifications) required by this subpart. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or period.

(i) All applicable records shall be maintained in such a manner that they can be readily accessed.

(ii) The most recent 12 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.

(iii) The remaining 4 years of records may be retained offsite.

(iv) 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) Records specified in Paragraph 63.10(b)(2);

(3) Records specified in Paragraph 63.10(c) for each monitoring system operated by the owner or operator in accordance with the requirements of Paragraph 63.1283(d). Notwithstanding the previous sentence, monitoring data recorded during periods identified in paragraphs (b)(3)(i) through (iv) of this section shall not be included in any average or percent leak rate computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device operation when monitors are not operating.

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

(ii) Startup, shutdown, and malfunction events. During startup, shutdown and malfunction events, the owner or operator shall maintain records indicating whether or not the startup, shutdown, or malfunction plan, required under Paragraph 63.1272(d), was followed.

(iii) Periods of non-operation resulting in cessation of the emissions to which the monitoring applies; and

(iv) Excursions due to invalid data as defined in Paragraph 63.1283(d)(6)(iii).

(4) Each owner or operator using a control device to comply with Paragraph 63.1274 shall keep the following records up-to-date and readily accessible:

**A. State and Federally Enforcable Section (continued)**

(i) Continuous records of the equipment operating parameters specified to be monitored under Paragraph 63.1283(d) or specified by the Administrator in accordance with Paragraph 63.1283(d)(3)(iii). For flares, the hourly records and records of pilot flame outages specified in paragraph (e) of this section shall be maintained in place of continuous records.

(ii) Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in Paragraph 63.1283(d)(4). For flares, the records required in paragraph (e) of this section.

(iii) Hourly records of whether the flow indicator specified under Paragraph 63.1281(c)(3)(i)(A) was operating and whether flow was detected at any time during the hour, as well as records of the times and durations of all periods when the vent stream is diverted from the control device or the monitor is not operating.

(iv) Where a seal or closure mechanism is used to comply with Paragraph 63.1281(c)(3)(i)(B), hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken.

(5) Records identifying all parts of the closed-vent system that are designated as unsafe to inspect in accordance with Paragraph 63.1283(c)(5), an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

(6) Records identifying all parts of the closed-vent system that are designated as difficult to inspect in accordance with Paragraph 63.1283(c)(6), an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

(7) For each inspection conducted in accordance with Paragraph 63.1283(c), during which a leak or defect is detected, a record of the information specified in paragraphs (b)(7)(i) through (b)(7)(viii) of this section.

(i) The instrument identification numbers, operator name or initials, and identification of the equipment.

(ii) The date the leak or defect was detected and the date of the first attempt to repair the leak or defect.

(iii) Maximum instrument reading measured by the method specified in Paragraph 63.1282(b) after the leak or defect is successfully repaired or determined to be nonrepairable.

(iv) "Repair delayed" and the reason for the delay if a leak or defect is not repaired within 15 calendar days after discovery of the leak or defect.

(v) The name, initials, or other form of identification of the owner or operator (or designee) whose decision it was that repair could not be effected without a shutdown.

(vi) The expected date of successful repair of the leak or defect if a leak or defect is not repaired within 15 calendar days.

(vii) Dates of shutdowns that occur while the equipment is unrepaired.

(viii) The date of successful repair of the leak or defect.

(8) For each inspection conducted in accordance with Paragraph 63.1283(c) during which no leaks or defects are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks or defects were detected.

(9) Records of glycol dehydration unit baseline operations calculated as required under Paragraph 63.1281(e)(1).

## A. State and Federally Enforcable Section (continued)

(10) Records required in Paragraph 63.1281(e)(3)(i) documenting that the facility continues to operate under the conditions specified in Paragraph 63.1281(e)(2).

(c) An owner or operator that elects to comply with the benzene emission limit specified in Paragraph 63.1275(b)(1)(ii) shall document, to the Administrator's satisfaction, the following items:

(1) The method used for achieving compliance and the basis for using this compliance method; and

(2) The method used for demonstrating compliance with 0.90 megagrams per year of benzene.

(3) Any information necessary to demonstrate compliance as required in the methods specified in paragraphs (c)(1) and (c)(2) of this section.

(d) An owner or operator that is exempt from control requirements under Paragraph 63.1274(d) shall maintain the records specified in paragraph (d)(1) or (d)(2) of this section, as appropriate, for each glycol dehydration unit that is not controlled according to the requirements of Paragraph 63.1274(c).

(1) The actual annual average natural gas throughput (in terms of natural gas flowrate to the glycol dehydration unit per day), as determined in accordance with Paragraph 63.1282(a)(1); or

(2) The actual average benzene emissions (in terms of benzene emissions per year), as determined in accordance with Paragraph 63.1282(a)(2).

(e) Record the following when using a flare to comply with Paragraph 63.1281(d):

(1) Flare design (i.e., steam-assisted, air-assisted, or non-assisted);

(2) All visible emission readings, heat content determinations, flowrate measurements, and exit velocity determinations made during the compliance determination required by Paragraph 63.1282(d)(2); and

(3) All hourly records and other recorded periods when the pilot flame is absent.

[64 FR 32648, June 17, 1999, as amended at 66 FR 34558, June 29, 2001]

## A. State and Federally Enforcable Section (continued)

**13.** Paragraph 63.1285 Reporting requirements.

(a) The reporting provisions of subpart A, of this part that apply and those that do not apply to owners and operators of facilities subject to this subpart are listed in Table 2 of this subpart.

(b) Each owner or operator of a facility subject to this subpart shall submit the information listed in paragraphs (b)(1) through (b)(6) of this section, except as provided in paragraph (b)(7) of this section.

(1) The initial notifications required for existing affected sources under Paragraph 63.9(b)(2) shall be submitted by 1 year after an affected source becomes subject to the provisions of this subpart or by June 17, 2000, whichever is later. Affected sources that are major sources on or before June 17, 2000 and plan to be area sources by June 17, 2002 shall include in this notification a brief, nonbinding description of a schedule for the action(s) that are planned to achieve area source status.

(2) The date of the performance evaluation as specified in Paragraph 63.8(e)(2), required only if the owner or operator is requested by the Administrator to conduct a performance evaluation for a continuous monitoring system. A separate notification of the performance evaluation is not required if it is included in the initial notification submitted in accordance with paragraph (b)(1) of this section.

(3) The planned date of a performance test at least 60 days before the test in accordance with Paragraph 63.7(b). Unless requested by the Administrator, a site-specific test plan is not required by this subpart. If requested by the Administrator, the owner or operator must also submit the site-specific test plan required by Paragraph 63.7(c) with the notification of the performance test. A separate notification of the performance test is not required if it is included in the initial notification submitted in accordance with paragraph (b)(1) of this section.

(5) Periodic Reports as described in paragraph (e) of this section; and

(6) Startup, shutdown, and malfunction reports, as specified in Paragraph 63.10(d)(5), shall be submitted as required. Separate startup, shutdown, or malfunction reports as described in Paragraph 63.10(d)(5)(i) are not required if the information is included in the Periodic Report specified in paragraph (e) of this section.

(7) Each owner or operator of a glycol dehydration unit subject to this subpart that is exempt from the control requirements for glycol dehydration unit process vents in Paragraph 63.1275, is exempt from all reporting requirements for major sources in this subpart for that unit.

(c) [Reserved]

(d) Each owner or operator of a source subject to this subpart shall submit a Notification of Compliance Status Report as required under Paragraph 63.9(h) within 180 days after the compliance date specified in Paragraph 63.1270(d). In addition to the information required under Paragraph 63.9(h), the Notification of Compliance Status Report shall include the information specified in paragraphs (d)(1) through (10) of this section. This information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination of the three. If all of the information required under this paragraph have been submitted at any time prior to 180 days after the applicable compliance dates specified in Paragraph 63.1270(d), a separate Notification of Compliance Status Report is not required. If an owner or operator submits the information specified in paragraphs (d)(1) through (10) of this section at different times, and/or different submittals, subsequent submittals may refer to previous submittals instead of duplicating and resubmitting the previously submitted information.

**A. State and Federally Enforcable Section (continued)**

(1) If a closed-vent system and a control device other than a flare are used to comply with Paragraph 63.1274, the owner or operator shall submit:

(i) The design analysis documentation specified in Paragraph 63.1282(d)(4) of this subpart if the owner or operator elects to prepare a design analysis; or

(ii) If the owner or operator elects to conduct a performance test, the performance test results including the information specified in paragraphs (d)(1)(ii)(A) and (B) of this section. Results of a performance test conducted prior to the compliance date of this subpart can be used provided that the test was conducted using the methods specified in Paragraph 63.1282(d)(3), and that the test conditions are representative of current operating conditions.

(A) The percent reduction of HAP or TOC, or the outlet concentration of HAP or TOC (parts per million by volume on a dry basis), determined as specified in Paragraph 63.1282(d)(3) of this subpart; and

(B) The value of the monitored parameters specified in Paragraph 63.1283(d) of this subpart, or a site-specific parameter approved by the permitting agency, averaged over the full period of the performance test.

(iii) The results of the closed-vent system initial inspections performed according to the requirements in Paragraph 63.1283(c)(2)(i) and (ii).

(2) If a closed-vent system and a flare are used to comply with Paragraph 63.1274, the owner or operator shall submit performance test results including the information in paragraphs (d)(2)(i) and (ii) of this section.

(i) All visible emission readings, heat content determinations, flowrate measurements, and exit velocity determinations made during the compliance determination required by Paragraph 63.1282(d)(2) of this subpart, and

(ii) A statement of whether a flame was present at the pilot light over the full period of the compliance determination.

(iii) The results of the closed-vent system initial inspections performed according to the requirements in Paragraph 63.1283(c)(2)(i) and (ii).

(3) The owner or operator shall submit one complete test report for each test method used for a particular source.

(i) For additional tests performed using the same test method, the results specified in paragraph (d)(1)(ii) of this section shall be submitted, but a complete test report is not required.

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

(4) For each control device other than a flare used to meet the requirements of Paragraph 63.1274, the owner or operator shall submit the information specified in paragraphs (d)(4)(i) through (iii) of this section for each operating parameter required to be monitored in accordance with the requirements of Paragraph 63.1283(d).

## A. State and Federally Enforcable Section (continued)

(i) The minimum operating parameter value or maximum operating parameter value, as appropriate for the control device, established by the owner or operator to define the conditions at which the control device must be operated to continuously achieve the applicable performance requirements of Paragraph 63.1281(d)(1) or (e)(3)(ii).

(ii) An explanation of the rationale for why the owner or operator selected each of the operating parameter values established in Paragraph 63.1283(d)(5) of this subpart. This explanation shall include any data and calculations used to develop the value, and a description of why the chosen value indicates that the control device is operating in accordance with the applicable requirements of Paragraph 63.1281(d)(1) or (e)(3)(ii).

(iii) A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

(5) Results of any continuous monitoring system performance evaluations shall be included in the Notification of Compliance Status Report.

(6) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this subpart. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this subpart, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in this subpart.

(7) The owner or operator that elects to comply with the requirements of Paragraph 63.1275(b)(1)(ii) shall submit the records required under Paragraph 63.1284(c).

(8) The owner or operator shall submit an analysis demonstrating whether an affected source is a major source using the maximum throughput calculated according to Paragraph 63.1270(a).

(9) The owner or operator shall submit a statement as to whether the source has complied with the requirements of this subpart.

(10) The owner or operator shall submit the analysis prepared under Paragraph 63.1281(e)(2) to demonstrate that the conditions by which the facility will be operated to achieve an overall HAP emission reduction of 95.0 percent through process modifications or a combination of process modifications and one or more control devices.

(e) Periodic Reports. An owner or operator shall prepare Periodic Reports in accordance with paragraphs (e)(1) and (2) of this section and submit them to the Administrator.

(1) An owner or operator shall submit Periodic Reports semiannually beginning 60 calendar days after the end of the applicable reporting period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status Report is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status Report is due.

(2) The owner or operator shall include the information specified in paragraphs (e)(2)(i) through (ix) of this section, as applicable.

(i) The information required under Paragraph 63.10(e)(3). For the purposes of this subpart and the information required under ? 63.10(e)(3), excursions (as defined in Paragraph 63.1283(d)(6)) shall be considered excess emissions.

(ii) A description of all excursions as defined in Paragraph 63.1283(d)(6) of this subpart that have occurred during the 6-month reporting period.

## A. State and Federally Enforcable Section (continued)

(A) For each excursion caused when the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit), as specified in Paragraph 63.1283(d)(6)(i), the report must include the daily average values of the monitored parameter, the applicable operating parameter limit, and the date and duration of the period that the excursion occurred.

(B) For each excursion caused when the 30-day average condenser control efficiency is less than 95.0 percent, as specified in Paragraph 63.1283(d)(6)(ii), the report must include the 30-day average values of the condenser control efficiency, and the date and duration of the period that the excursion occurred.

(C) For each excursion caused by lack of monitoring data, as specified in Paragraph 63.1283(d)(6)(iii), the report must include the date and duration of period when the monitoring data were not collected and the reason why the data were not collected.

(iii) For each inspection conducted in accordance with Paragraph 63.1283(c) during which a leak or defect is detected, the records specified in Paragraph 63.1284(b)(7) must be included in the next Periodic Report.

(iv) For each closed-vent system with a bypass line subject to Paragraph 63.1281(c)(3)(i)(A), records required under Paragraph 63.1284(b)(4)(iii) of all periods when the vent stream is diverted from the control device through a bypass line. For each closed-vent system with a bypass line subject to Paragraph 63.1281(c)(3)(i)(B), records required under Paragraph 63.1284(b)(4)(iv) of all periods in which the seal or closure mechanism is broken, the bypass valve position has changed, or the key to unlock the bypass line valve was checked out.

(v) If an owner or operator elects to comply with Paragraph 63.1275(b)(1)(ii), the records required under Paragraph 63.1284(c)(3).

(vi) The information in paragraphs (e)(2)(vi)(A) and (B) of this section shall be stated in the Periodic Report, when applicable.

(A) No excursions.

(B) No continuous monitoring system has been inoperative, out of control, repaired, or adjusted.

(vii) Any change in compliance methods as specified in Paragraph 63.1282(e).

(viii) If the owner or operator elects to comply with Paragraph 63.1275(c)(2), the records required under Paragraph 63.1284(b)(10).

(ix) For flares, the records specified in Paragraph 63.1284(e).

(f) Notification of process change. Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the owner or operator shall submit a report within 180 days after the process change is made or as a part of the next Periodic Report as required under paragraph (e) of this section, whichever is sooner. The report shall include:

(1) A brief description of the process change;

(2) A description of any modification to standard procedures or quality assurance procedures;

(3) Revisions to any of the information reported in the original Notification of Compliance Status Report under paragraph (d) of this section; and

(4) Information required by the Notification of Compliance Status Report under paragraph (d) of this section for changes involving the addition of processes or equipment.

[64 FR 32648, June 17, 1999, as amended at 66 FR 34558, June 29, 2001]

## A. State and Federally Enforcable Section (continued)

**14.** Paragraph 63.1286 Delegation of authority.

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

(b) Authorities will not be delegated to States for Paragraph 63.1282 and 63.1287 of this subpart.

**15.** Paragraph 63.1287 Alternative means of emission limitation.

(a) If, in the judgment of the Administrator, an alternative means of emission limitation will achieve a reduction in HAP emissions at least equivalent to the reduction in HAP emissions from that source achieved under the applicable requirements in Paragraph 63.1274 through 63.1281, the Administrator will publish a notice in the Federal Register permitting the use of the alternative means for purposes of compliance with that requirement. The notice may condition the permission on requirements related to the operation and maintenance of the alternative means.

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

(c) Any person seeking permission to use an alternative means of compliance under this section shall collect, verify, and submit to the Administrator information showing that this means achieves equivalent emission reductions.

**16.** Paragraph 63.1288 - 63.1289 Reserved

**17.** Appendix to Subpart HHH of Part 63 -- Tables
Table 1._List of Hazardous Air Pollutants (HAP) for Subpart HHH

| CAS Number (a) | Chemical name |
|---|---|
| 75070 | Acetaldehyde |
| 71432 | Benzene (includes benzene in gasoline) |
| 75150 | Carbon disulfide |
| 463581 | Carbonyl sulfide |
| 100414 | Ethyl benzene |
| 107211 | Ethylene glycol |
| 75050 | Acetaldehyde |
| 50000 | Formaldehyde |
| 110543 | n-Hexane |
| 91203 | Naphthalene |
| 108883 | Toluene |
| 540841 | 2,2,4-Trimethylpentane |
| 1330207 | Xylenes (isomers and mixture) |
| 95476 | o-Xylene |
| 108383 | m-Xylene |
| 106423 | p-Xylene |

(a) CAS numbers refer to the Chemical Abstracts Services registry number assigned to specific compounds, isomers, or mixtures of compounds.

**A. State and Federally Enforcable Section (continued)**

**18.** Table 2 to Subpart HHH of Part 63 -- Applicability of 40 CFR Part 63 General Provisions to Subpart HHH

| General provisions reference | Applicable to subpart HHH | Explanation |
|---|---|---|
| Paragraph 63.1(a)(1)..... | Yes | |
| Paragraph 63.1(a)(2)..... | Yes | |
| Paragraph 63.1(a)(3)..... | Yes | |
| Paragraph 63.1(a)(4)..... | Yes | |
| Paragraph 63.1(a)(5)..... | No..... | Section reserved. |
| Paragraph 63.1(a)(6) through (a)(8). | Yes | |
| Paragraph 63.1(a)(9)..... | No..... | Section reserved. |
| Paragraph 63.1(a)(10)..... | Yes | |
| Paragraph 63.1(a)(11)..... | Yes | |
| Paragraph 63.1(a)(12) through (a)(14). | Yes | |
| Paragraph 63.1(b)(1)..... | No..... | Subpart HHH specifies applicability. |
| 63.1(b)(2)..... | Yes | |
| 63.1(b)(3)..... | No..... | |
| 63.1(c)(1)..... | No..... | Subpart HHH specifies applicability. |
| 63.1(c)(2)..... | No | |
| 63.1(c)(3)..... | No..... | Section reserved. |
| 63.1(c)(4)..... | Yes | |
| 63.1(c)(5)..... | Yes | |
| 63.1(d)..... | No..... | Section reserved. |
| 63.1(e)..... | Yes | |
| 63.2..... | Yes..... | Except definition of major source is unique for this source category and there are additional definitions in subpart HHH. |
| 63.3(a) through (c).. | Yes | |
| 63.4(a)(1) through (a)(3). | Yes | |
| 63.4(a)(4)..... | No..... | Section reserved. |
| 63.4(a)(5)..... | Yes | |
| 63.4(b)..... | Yes | |
| 63.4(c)..... | Yes | |
| 63.5(a)(1)..... | Yes | |

## A. State and Federally Enforcable Section (continued)

63.5(a)(2)..... No..... Preconstruction
review required
only for major
63.5(b)(1)..... Yes
63.5(b)(2)..... No..... Section reserved.
63.5(b)(3)..... Yes
63.5(b)(4)..... Yes
63.5(b)(5)..... Yes
63.5(b)(6)..... Yes
63.5(c)..... No..... Section reserved.
63.5(d)(1)..... Yes
63.5(d)(2)..... Yes
63.5(d)(3)..... Yes
63.5(d)(4)..... Yes
63.5(e)..... Yes
63.5(f)(1)..... Yes
63.5(f)(2)..... Yes
63.6(a)..... Yes
63.6(b)(1)..... Yes
63.6(b)(2)..... Yes
63.6(b)(3)..... Yes
63.6(b)(4)..... Yes
63.6(b)(5)..... Yes
63.6(b)(6)..... No..... Section reserved.
63.6(b)(7)..... Yes
63.6(c)(1)..... Yes
63.6(c)(2)..... Yes
63.6(c)(3) and (c)(4) No..... Section reserved.
63.6(c)(5)..... Yes
63.6(d)..... No..... Section reserved.
63.6(e)..... Yes
63.6(e)..... Yes Except as otherwise
specified.
63.6(e)(1)(i)..... No..... Addressed in
63.1272.
63.6(e)(1)(ii)..... Yes
63.6(e)(1)(iii)..... Yes
63.6(e)(2)..... Yes
63.6(e)(3)(i)..... Yes..... Except as otherwise
specified.
63.6(e)(3)(i)(A)..... No..... Addressed by
63.1272(c).
63.6(e)(3)(i)(B)..... Yes
63.6(e)(3)(i)(C)..... Yes
63.6(e)(3)(ii) Yes
through (3)(vi).
63.6(e)(3)(vii).....
63.6(e)(3)(vii) (A).. Yes

**A. State and Federally Enforcable Section (continued)**

63.6(e)(3)(vii) (B).. Yes..... Except that the plan must provide for operation in compliance with 63.1272(c).
63.6(e)(3)(vii) (C).. Yes
63.6(e)3)(viii)..... Yes
63.6(f)(1)..... Yes..... .....
63.6(f)(2)..... Yes..... .....
63.6(f)(3)..... Yes..... .....
63.6(g)..... Yes..... .....
63.6(h)..... No..... Subpart HHH does not contain opacity or visible emission standards.
63.6(i)(1)-(i)(14)... Yes..... .....
63.6(i)(15)..... No..... Section reserved.
63.6(i)(16)..... Yes..... .....
63.6(j)..... Yes..... .....
63.7(a)(1)..... Yes..... .....
63.7(a)(2)..... Yes..... But the performance test results must be submitted within 180 days after the compliance date.

## A. State and Federally Enforcable Section (continued)

63.7(a)(3)..... Yes..... .....
63.7(b)..... Yes..... .....
63.7(c)..... Yes..... .....
63.7(d)..... Yes..... .....
63.7(e)(1)..... Yes
63.7(e)(2)..... Yes
63.7(e)(3)..... Yes
63.7(e)(4)..... Yes
63.7(f)..... Yes
63.7(g)..... Yes
63.7(h)..... Yes
63.8(a)(1)..... Yes
63.8(a)(2)..... Yes
63.8(a)(3)..... No..... Section reserved.
63.8(a)(4)..... Yes
63.8(b)(1)..... Yes
63.8(b)(2)..... Yes
63.8(b)(3)..... Yes
63.8(c)(1)..... Yes
63.8(c)(2)..... Yes
63.8(c)(3)..... Yes
63.8(c)(4)..... No.....
63.8(c)(5) through (c)(8). Yes
63.8(d)..... Yes
63.8(e)..... Yes..... Subpart HHH does not specifically require continuous emissions monitor performance evaluations, however, the Administrator can request that one be conducted.

## A. State and Federally Enforcable Section (continued)

63.8(f)(1) through (f)(5). Yes
63.8(f)(6)..... No..... Subpart HHH does not require continuous emissions monitoring.
63.8(g)..... No..... Subpart HHH specifies continuous monitoring system data reduction requirements.
63.9(a)..... Yes
63.9(b)(1)..... Yes
63.9(b)(2)..... Yes..... Existing sources are given 1 year (rather than 120 days) to submit this notification.
63.9(b)(3)..... Yes
63.9(b)(4)..... Yes
63.9(b)(5)..... Yes
63.9(c)..... Yes
63.9(d)..... Yes
63.9(e)..... Yes
63.9(f)..... No.....
63.9(g)..... Yes
63.9(h)(1) through (h)(3). Yes
63.9(h)(4)..... No..... Section reserved.
63.9(h)(5) and (h)(6) Yes
63.9(i)..... Yes
63.9(j)..... Yes
63.10(a)..... Yes

## A. State and Federally Enforcable Section (continued)

63.10(b)(1)..... Yes..... Section 63.1284(b)(1) requires sources to maintain the most recent 12 months of data on site and allows offsite storage for the remaining 4 years of data.
63.10(b)(2)..... Yes
63.10(b)(3)..... No
63.10(c)(1)..... Yes
63.10(c)(2) through (c)(4). No..... Sections reserved.
63.10(c)(5) through (c)(8). Yes
63.10(c)(9)..... No..... Section reserved.
63.10(c)(10) through (c)(15). Yes
63.10(d)(1)..... Yes
63.10(d)(2)..... Yes
63.10(d)(3)..... Yes
63.10(d)(4)..... Yes
63.10(d)(5)..... Yes..... Subpart HHH requires major sources to submit a startup, shutdown and malfunction report semi-annually.

## A. State and Federally Enforcable Section (continued)

63.10(e)(1)..... Yes
63.10(e)(2)..... Yes
63.10(e)(3)(i)..... Yes..... Subpart HHH requires major sources to submit Periodic Reports semi-annually.
63.10(e)(3)(i)(A).... Yes
63.10(e)(3)(i)(B).... Yes
63.10(e)(3)(i)(C).... No..... Subpart HHH does not require quarterly reporting for excess emissions.
63.10(e)(3)(ii) through (e)(3)(viii). Yes
63.10(f)..... Yes
63.11(a) and (b)..... Yes
63.12(a) through (c). Yes
63.13(a) through (c). Yes
63.14(a) and (b)..... Yes
63.15(a) and (b)..... Yes
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[64 FR 32648, June 17, 1999, as amended at 66 FR 34558, June 29, 2001]

## B. State Only Enforceable Section

**1.** The following insignificant emissions unit is located at this facility:

Gasoline Tank, Ohio EPA emissions unit T001

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:** HEATER #3 (B002)

**Activity Description:** LINE HEATER: A NATURAL GAS-FIRED INDIRECT PROCESS HEATER.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 10.0 mmBtu/hr, natural gas-fired heater; Line heater no. 3 | OAC rule 3745-31-05 (PTI # 03-13048) | 0.2 lb particualte emissions (PE)/hr, 0.88 ton PE/yr<br><br>0.007 lb sulfur dioxide (SO2)/hr, 0.03 ton SO2/yr<br><br>1.0 lb nitrogen oxides (NOx)/hr, 4.4 tons NOx/yr<br><br>0.2 lb carbon monoxide (CO)/hr, 0.9 ton CO/yr<br><br>0.053 lb volatile organic compounds (VOC)/hr, 0.23 ton VOC/yr<br><br>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-10(B)(1), 3745-17-07(A), 3745-23-06(B), 3745-21-08(B), and 3745-18-06(A). |
| | OAC rule 3745-17-07(A) | Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-17-10(B)(1) | 0.020 lb PE/mmBtu of actual heat input |
| | OAC rules 3745-21-08(B) and 3745-23-06(B) | See A.I.2.a. |
| | OAC rule 3745-18-06(A) | See A.I.2.b. |

**2. Additional Terms and Conditions**

**2.a** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 03-13048.

**2.b** OAC rule 3745-18-06(A) does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned in this emissions unit is the standard, pipeline quality natural gas supplied to industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).

## II. Operational Restrictions

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

## III. Monitoring and/or Record Keeping Requirements

**1.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## 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.

## V. Testing Requirements

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

**1.a** Emission Limitation:
0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method:
The permittee may demonstrate compliance with the lb PE/mmBtu allowable limitation above by multiplying the emission factor of 1.9 lbs PE (filterable)/mm cu.ft of natural gas [from AP-42, Table 1.4-2 (revised 7/98)] by the emissions unit's maximum hourly natural gas consumption rate (10,000 cu.ft/hr), and then dividing by the maximum heat input rate of the emissions unit (10 mmBtu/hr).

If required, the permittee shall demonstrate compliance with the PE limitation above pursuant to OAC rule 3745-17-03(B)(9).

## V. Testing Requirements (continued)

**1.b** Emission Limitations:
0.2 lb PE/hr and 0.88 ton/yr PE

Applicable Compliance Method:
The permittee may demonstrate compliance with the hourly allowable PE emission limitation by multiplying the emission factor of 1.9 lbs PE/mm cu. ft of natural gas [from AP-42, Table 1.4-2 (revised 7/98)] by the maximum natural gas consumption rate of 10,000 cu. ft./hr.

If required, the permittee shall demonstrate compliance with the PE limitation above pursuant to Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable PE limitation shall be assumed as long as compliance with the hourly allowable PE emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

**1.c** Emission Limitations:
0.007 lb SO2/hr and 0.03 ton/yr SO2

Applicable Compliance Method:
Compliance with the hourly allowable SO2 emission limitation may be determined by multiplying the emission factor of 0.00071 lb SO2/mmBtu (based on the estimate of 0.25 grain of sulfur per 100 standard cubic feet of natural gas) by the maximum heat input capacity to the boiler (10 mmBtu/hr).

If required, the permittee shall demonstrate compliance with the hourly allowable SO2 emission limitation pursuant to Methods 1 - 4 and 6 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable SO2 emission limitation shall be assumed as long as compliance with the hourly allowable SO2 emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

**1.d** Emission Limitations:
1.0 lb NOx/hr and 4.4 tons/yr NOx

Applicable Compliance Method:
The permittee may demonstrate compliance with the hourly allowable NOx emission limitation by multiplying the emission factor of 100 lbs NOx/mm cu. ft. of natural gas [from AP-42, Table 1.4-1 (revised 7/98)] by the maximum natural gas consumption rate of 10,000 cu. ft/hr.

If required, the permittee shall demonstrate compliance with the hourly allowable NOx emission limitation pursuant to Methods 1 - 4 and 7 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable NOx limitation shall be assumed as long as compliance with the hourly allowable NOx emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

## V. Testing Requirements (continued)

**1.e** Emission Limitations:
0.2 lb CO/hr and 0.9 ton/yr CO

Applicable Compliance Method:
The permittee may demonstrate compliance with the hourly allowable CO emission limitation by multiplying the emission factor of 84 lbs CO/mm cu. ft of natural gas [from AP-42, Table 1.4-1 (revised 7/98)] by the maximum natural gas consumption rate of 10,000 cu. ft./hr.

If required, the permittee shall demonstrate compliance with the hourly allowable CO emission limitation pursuant to Methods 1 - 4 and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable CO limitation shall be assumed as long as compliance with the hourly allowable CO emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

**1.f** Emission Limitations:
0.053 lb VOC/hr and 0.23 ton/yr VOC

Applicable Compliance Method:
The permittee may demonstrate compliance with the hourly allowable VOC emission limitation by multiplying the emission factor of 5.5 lbs VOC/mm cu. ft. of natural gas [from AP-42, Table 1.4-2 (revised 7/98)] by the maximum natural gas consumption rate of 10,000 cu. ft./hr.

If required, the permittee shall demonstrate compliance with the hourly allowable VOC emission limitation pursuant to Methods 1 - 4 and 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable VOC limitation shall be assumed as long as compliance with the hourly allowable VOC emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

**1.g** Emission Limitation:
Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

## VI. Miscellaneous Requirements

**1.** The permittee received permit to install 03-13048 on December 21, 1998, which allowed the installation of this emissions unit and established CO and VOC emission limitations calculated using AP-42 natural gas emission factors. Since the issuance of this permit, the AP-42 emission factors for CO and VOC were revised [AP-42 Section 1.4, Natural Gas Combustion (dated 7/98)]. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a written request for an adminstrative modification to the PTI and an updated Emissions Activities Catagory (EAC) form within 2 months following the issuance of this permit.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** HEATER #2 (B004)

**Activity Description:** LINE HEATER: A NATURAL GAS-FIRED INDIRECT PROCESS HEATER.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 10.0 mm Btu/hr, natural gas-fired heater; Line heater no. 2 | OAC rule 3745-31-05 (PTI #03-1771) | The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-10(B)(1), 3745-17-07(A), 3745-18-06(A), 3745-23-06(B), and 3745-21-08(B). |
| | OAC rule 3745-17-07(A) | Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-17-10(B)(1) | 0.020 lb PE/mmBtu of actual heat input |
| | OAC rules 3745-21-08(B) and 3745-23-06(B) | See A.I.2.a. |
| | OAC rule 3745-18-06(A) | See A.I.2.b. |

**2. Additional Terms and Conditions**

**2.a** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 03-1771.

**2.b** OAC rule 3745-18-06(A) does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned in this emissions unit is the standard, pipeline quality natural gas supplied to industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).

## II. Operational Restrictions

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

## III. Monitoring and/or Record Keeping Requirements

**1.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## 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.

## V. Testing Requirements

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

**1.a** Emission Limitation:
0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method:
The permittee may demonstrate compliance with the lb PE/mmBtu allowable limitation above by multiplying the emission factor of 1.9 lbs PE (filterable)/mm cu.ft of natural gas [from AP-42, Table 1.4-2 (revised 7/98)] by the emissions unit's maximum hourly natural gas consumption rate (10,000 cu.ft/hr), and then dividing by the maximum heat input rate of the emissions unit (10 mmBtu/hr).

If required, the permittee shall demonstrate compliance with the PE limitation above pursuant to OAC rule 3745-17-03(B)(9).

**1.b** Emission Limitation:
Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** RECIP ENGINE/GENERATOR #067G1 (P001)

**Activity Description:** EMERGENCY GENERATOR : A NATURAL GAS-FIRED RECIPROCATING ENGINE GENERATING ELECTRICITY.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 3.1 mmBtu/hr, natural gas-fired small internal combustion engine | OAC rule 3745-31-05 (PTI# 03-10822) | 12.1 lbs nitrogen oxides(NOx)/hr, 24.1 tons NOx/yr<br><br>0.19 lb sulfur dioxide (SO2)/hr, 0.4 ton SO2/yr<br><br>10.4 lbs carbon monoxide (CO)/hr, 20.7 tons CO/yr<br><br>See A.I.2.a. and b. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-17-11(B)(5)(a) | 0.310 lb (PE)/mmBtu of actual heat input (See A.I.2.c.)<br><br>0.25 lb PE/mmBtu of actual heat input (See A.I.2.d.) |
| | OAC rule 3745-18-06(G) | Exempt, pursuant to OAC rules 3745-18-06(A) and 3745-18-06(B). (See A.I.2.e.) |
| | OAC rules 3745-21-08(B) and 3745-23-06(B) | See A.I.2.f. |

**2. Additional Terms and Conditions**

**2.a** The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(a), 3745-17-07(A), 3745-23-06(B) and 3745-21-08(B).

**2.b** This emissions unit emits acetaldehyde, acrolein, benzene, ethyl benzene, formaldehyde, toluene and xylene. However, PTI #03-10822 did not establish any limitations for these pollutants because the potential to emit for each pollutant is less than a ton and no modeling was necessary.

**2. Additional Terms and Conditions (continued)**

**2.c** The PE limitation shall be effective and federally enforceable on the date the U.S. EPA approves this PE limitation as a revision to the Ohio State Implementation Plan (SIP) for particulate matter.

**2.d** The requirement to comply with this PE limitation shall terminate on the date the U.S. EPA approves the 0.310 lb/mmBtu actual heat input emission limitation as a revision to the Ohio SIP for particulate matter.

**2.e** Since the rated heat input capacity for this emissions unit is less than 10 mmBtu/hr, this emissions unit is exempt from the sulfur dioxide emission limitation in OAC rule 3745-18-06(G), pursuant to OAC rule 3745-18-06(B). Also, natural gas is the only fuel fired in this emissions unit and, therefore, this emissions unit is exempt from the sulfur dioxide emission limitation in OAC rule 3745-18-06(G), pursuant to OAC rule 3745-18-06(A).

**2.f** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 03-10822.

## II. Operational Restrictions

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

**2.** The maximum annual operating hours for this emissions unit shall not exceed 3,981.

## III. Monitoring and/or Record Keeping Requirements

**1.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

**2.** The permittee shall maintain monthly records of the number of operating hours for this emissions unit.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

**2.** The permittee shall submit annual reports that summarize the actual annual number of hours of operation for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

## V. Testing Requirements

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

**1.a** Emission Limitations:
0.31 lb PE/mmBtu of actual heat input
0.25 lb PE/mmBtu of actual heat input

Applicable Compliance Method:
The permittee may demonstrate compliance with the lb PE/mmBtu allowable emission limitation based on the emission factor from AP-42, Table 3.2-3 (revised 7/00) of 0.0095 lb PE (filterable)/mmBtu of actual heat input.

If required, the permittee shall demonstrate compliance with the PE limitations above in accordance with Methods in OAC rule 3745-17-03(B)(10).

## V. Testing Requirements (continued)

**1.b** Emission Limitation:
Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

**1.c** Emission Limitations:
12.1 lbs NOx/hr, 24.1 tons NOx/yr

Applicable Compliance Method:
The permittee may determine compliance with the hourly allowable NOx emission limitation by multiplying the emission factor from AP-42, Table 3.2-3 (revised 7/00) of 2.27 lbs NOx/mmBtu/hr by the maximum hourly heat input rate (3.1 mmBtu/hr).

If required, compliance with the hourly allowable NOx emission limitation shall be determined in accordance with Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A.

Provided compliance is shown with the hourly allowable NOx emission limitation and the restriction on the annual number of hours of operation, compliance with the annual limitation shall be ensured (the annual allowable limitation was developed by multiplying the hourly allowable limitation by 3,981, and then dividing by 2000).

**1.d** Emission Limitations:
0.19 lbs SO2/hr, 0.4 tons SO2/yr

Applicable Compliance Method:
The permittee may also determine compliance with the hourly allowable SO2 emission limitation by multiplying the emission factor from AP-42, Table 3.2-3 (revised 7/00) of 0.000588 lb SO2/mmBtu by the maximum hourly heat input rate (3.1 mmBtu/hr).

If required, compliance with the hourly allowable SO2 emission limitation shall be determined in accordance with Methods 1 through 4 and 6 of 40 CFR, Part 60, Appendix A.

Provided compliance is shown with the hourly allowable SO2 emission limitation and the restriction on the annual number of hours of operation, compliance with the annual limitation shall be ensured (the annual allowable limitation was developed by multiplying the hourly allowable limitation by 3,981, and then dividing by 2000).

**1.e** Emission Limitations: 10.4 lbs CO/hr and 20.7 tons CO/yr

Applicable Compliance Method:
The permittee may determine compliance with the hourly allowable CO emission limitation by multiplying the emission factor from AP-42, Table 3.2-3 (revised 7/00) of 3.51 lbs CO/mmBtu by the maximum hourly heat input rate (3.1 mmBtu/hr).

If required, compliance with the hourly allowable CO emission limitation shall be determined in accordance with Methods 1 through 4 and 10 of 40 CFR, Part 60, Appendix A.

Provided compliance is shown with the hourly allowable CO emission limitation and the restriction on the annual number of hours of operation, compliance with the annual limitation shall be ensured (the annual allowable limitation was developed by multiplying the hourly allowable limitation by 3,981, and then dividing by 2000).

## VI. Miscellaneous Requirements

**1.** The permittee cannot demonstrate compliance with the CO emission limitations established in PTI # 03-10822, which was issued on January 14, 1998. The PTI established the CO emission limitations based on the available AP-42 emission factors for natural gas combustion at that time. However, since the issuance of the PTI, the AP-42 emission factor for CO was revised [the emission factor increased from 1.6 to 3.51 lbs CO/mmBtu (AP-42, Section 3.2, Stationary Internal Combustion Sources (revised 7/00))], and hence, the permittee is currently operating the emissions unit in violation of the terms and conditions of the PTI. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a written request for an administrative modification to the PTI and an updated Emissions Activity Category (EAC) form within 2 months following the issuance of this permit.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** TEG DEHYDRATOR #1 (P002)

**Activity Description:** TEG DEHYDRATOR WITH REGENERATOR BOILER AND A THERMAL OXIDIZER AS CONTROL DEVICE

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| triethylene glycol, natural gas dehydrator No.1, with regeneration boiler and thermal oxidizer (TO) | OAC rule 3745-31-05 (PTI #03-13048) | emissions from the thermal oxidizer (stack T01):<br><br>0.007 lb particulate emissions (PE/)hr, 0.03 ton PE/yr<br><br>0.001 lb sulfur dioxide (SO2)/hr, 0.005 ton SO2/yr<br><br>0.11 lb nitrogen oxides (NOx)/hr, 0.48 ton NOx/yr<br><br>0.59 lb carbon monoxide (CO)/hr, 2.58 tons CO/yr<br><br>2.1 lb volatile organic compounds (VOC)/hr, 5.0 tons VOC/yr<br><br>2.08 tons benzene/yr<br><br>0.103 ton hexane/yr<br><br>2.04 tons toluene/yr<br><br>emissions from stack BL3:<br><br>0.05 lb PE/hr, 0.2 ton PE/yr<br><br>0.002 lb SO2/hr, 0.009 ton SO2/yr<br><br>0.2 lb NOx/hr, 0.9 ton NOx/yr<br><br>0.047 lb CO/hr, 0.2 ton CO/yr<br><br>0.012 lb VOC/hr, 0.05 ton VOC/yr |

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| | OAC rule 3745-17-10(B) | See A.I.2.a |
| | | 0.020 lb PE/mmBtu of total heat input (for stack BL3) |
| | OAC rule 3745-17-07(A) | Visible emissions shall not exceed 20% opacity, as a six minute average, except as provided by rule (for stack BL3). |
| | OAC rules 3745-23-06(B) and 3745-21-08(B) | See A.I.2.c. |
| | OAC rule 3745-18-06(A) | See A.I.2.d (for the boiler stack BL3). |
| | OAC rule 3745-18-06(E) | See A.I.2.e (for the thermal oxidizer stack T01). |
| | OAC rule 3745-21-07(G) | See A.I.2.f. |
| | OAC rule 3745-17-11(B) | See A.I.2.g (for stack T01). |
| | OAC rule 3745-17-07(A) | See A.I.2.h (for stack T01). |
| | 40 CFR, Part 63, Subpart HHH | See A.I.2.i. |

**2. Additional Terms and Conditions**

**2.a** The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-(10)(B) and 3745-17-07(A), 3745-21-07(G), 3745-23-06(B), 3745-21-08(B), 3745-18-06(A) and 3745-18-06(E) and 40 CFR, Part 63, Subpart HHH.

**2.b** The exhaust gases from the natural gas dehydrators, emission units P002 and P003, shall be vented, through a closed-vent system, to a TO that shall be capable of reducing the emissions of VOCs and HAPs by, at minimum, 95%, by weight.

[The closed-vent system shall be designed and operated with no detectable emissions.]

**2.c** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install # 03-13048.

**2.d** OAC rule 3745-18-06(A) does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned in this emissions unit is the standard, pipeline quality natural gas supplied to industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).

**2.e** There are no sulfur dioxide emission limitations established by OAC Chapter 3745-18 for equipment associated with this emissions unit that are not considered "fuel burning equipment" because the process weight rate is less than 1,000 pounds/hour.

**2.f** The emissions unit is designed to use only glycol, which is not a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

**2. Additional Terms and Conditions (continued)**

**2.g** The uncontrolled mass rate of PE* from Stack TO1 is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11 (A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01 (B)(14).

* The burning of natural gas is the only source of PE from this emissions unit.

**2.h** The emissions from Stack T01 are exempt from the visible PE limitations specified in OAC rule 3745-17-07 (A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

**2.i** The permittee shall comply with all applicable requirements of 40 CFR, Part 63, Subpart HHH, for this emissions unit. These requirements are listed in Part II - Specific Facility Terms and Conditions.

## II. Operational Restrictions

**1.** The average combustion temperature within the TO, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1200 degrees Fahrenheit.

**2.** The permittee shall follow the written standard operating and maintenance procedures for this emissions unit. These written procedures shall be available for inspection and review by the Director or his authorized representative.

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the TO when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of plus or minus 1% accuracy measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations.

The permittee shall perform an annual inspection of system components for visible emissions and leaks.

The permittee shall visually inspect the system components including, but not limited to, the closed-vent system, the entire length of ductwork, piping, connections to covers and control devices for evidence of visible defects such as holes in ductwork, piping or loose connections that may effect the ability of the system to operate with no detectable emissions. A visible hole, gap, tear, or split in the closed-vent system is defined as a leak and shall be repaired as soon as practicable. A first attempt shall be made no later than 5 calendar days after the leak is detected.

Repair of the leak shall be completed no later than 15 calendar days after the leak is detected.

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

**2.a** All 3-hour blocks of time during which the average combustion temperature within the TO, when the emissions unit was in operation, was less than 1200 degrees Fahrenheit.

**2.b** A log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation. The log shall also contain a record of the corrective action taken to repair the operating the equipment; and,

**2.c** A record of all startup, shutdown and malfunction events.

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

**3.** The permittee shall use Method 21of 40 CFR, Part 60, Appendix A to test each closed-vent system joint, seam, or other connection for any detectable emissions. For annual leak detection monitoring after the initial leak detection monitoring, the permittee is not required to monitor those closed-vent system components which continuously operate at a pressure below atmospheric pressure or those closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed pipe flange).

## IV. Reporting Requirements

**1.** The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the TO did not comply with the temperature limitation in Section A.II.1. The quarterly deviation reports shall be submitted in acordance with paragraph A.1.c of the General Terms and Conditions of this permit.

**2.** The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

## V. Testing Requirements

**1.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

**1.a** The emission testing shall be conducted within 3 months after issuance of this permit and within 6 months prior to permit expiration.

**1.b** The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for VOC and the thermal oxidizer destruction efficiency requirement of 95%, by weight. [An alternative means of demonstrating compliance is described in term A.V.2 below.]

**1.c** The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates for VOC:

i. Methods 1 - 4 and 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

ii. The test method(s) which must be employed to demonstrate compliance with the 95 percent, by weight, destruction efficiency for VOC's and HAP's.

The destruction efficiency shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the divisity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**1.d** The test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

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

Personnel from the Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office.

**2.** As an alternative to demonstrating compliance with an emission test, the permittee may submit a design analysis which includes analysis of the vent stream characteristics and control device operating parameters for the TO. The design analysis shall include the vent stream composition, constituents concentrations, flow rates and shall establish the design minimum and average temperatures in the combustion zone and the combustion zone residence time.

If the permittee and Ohio EPA do not agree on a demonstration of control device performance using a design analysis, then the disagreement shall be resolved using the results of a performance test performed by the permittee in accordance with the methods outlined in term A.V.1. above.

**3.** Compliance with the emission limitations in the air emission summary shall be determined in accordance with the following method(s):

**3.a** Emission Limitations:
stack TO1 - 0.007 lb PE/hr, 0.03 TPY PE

Applicable Compliance Method:
Compliance may be determined by multiplying an emission factor, from AP-42, Table 1.4-2 (revised 7/98), of 1.9 lbs PE(filterable)/mm cu. ft. by a maximum natural gas consumption rate of 3,100 cu. ft/hr.

If required, the permittee shall demonstrate compliance with the hourly allowable PE limitation above pursuant to Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable PE limitation shall be assumed as long as compliance with the hourly allowable PE limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

## V. Testing Requirements (continued)

**3.b** Emission Limitations:
stack TO1 - 0.001 lb SO2/hr, 0.005 TPY SO2

Applicable Compliance Method:
The permittee may determine compliance with the hourly allowable SO2 emission limitation by multiplying a sulfur grain loading of 0.25 gr/100 standard cubic foot (scf) of natural gas [derived from a natural gas sulfur content based on a material balance] by the maximum hourly natural gas consumption rate (3,100 scf/hr), and then dividing by 7000.

If required, the permittee shall demonstrate compliance with the hourly allowable SO2 emission limitation pursuant to Methods 1 - 4 and 6 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable SO2 limitation shall be assumed as long as compliance with the hourly allowable SO2 emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

**3.c** Emission Limitations:
stack TO1 - 0.11 lb NOx/hr, 0.48 TPY NOx

Applicable Compliance Method:
The permittee may determine compliance with the hourly allowable NOx emission limitation by multiplying the NOx emission factor of 0.071 lb NOx/mmBtu (the emission factor was derived from the results of emission testing conducted on a similar 1400 degree Fahrenheit TO) by the maximum heat input rate of 3.1 mmBtu/hr.

If required, the permittee shall demonstrate compliance with the hourly allowable NOx emission limitation above pursuant to Methods 1 - 4 and 7 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable NOx limitation shall be assumed as long as compliance with the hourly allowable NOx emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

**3.d** Emission Limitations:
stack T01 - 0.59 lb CO/hr, 2.58 TPY CO

Applicable Compliance Method:
The permittee may determine compliance Emission Limitations:
stack TO1 - 0.11 lb NOx/hr, 0.48 TPY NOx

Applicable Compliance Method:
The permittee may determine compliance with the hourly allowable CO emission limitation by multiplying the CO emission factor of 0.38 lb CO/mmBtu (the emission factor was derived from the results of emission testing conducted on a similar 1400 degree Fahrenheit TO) by the maximum heat input rate of 3.1 mmBtu/hr.

If required, the permittee shall demonstrate compliance with the hourly allowable CO emission limitation pursuant to Methods 1 - 4 and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable CO emission limitation shall be assumed as long as compliance with the hourly allowable CO emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

## V. Testing Requirements (continued)

**3.e** Emission Limitations:
stack TO1- 1.14 lb VOC/hr, 5.0 TPY VOC

Applicable Compliance Method:
The permittee may determine compliance with the hourly allowable VOC emission limitation by using the VOC emission estimate software program GLYCalc (version 3) (from the Gas Research Institute) and a pressure of 700 psig and a water flow rate of 20 lbs/hr.

If required, the permittee shall demonstrate compliance with the hourly allowable VOC emission limitation pursuant to Methods 1 - 4 and 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable VOC limitation shall be assumed as long as compliance with the hourly allowable VOC emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

**3.f** Emission Limitation:
stack TO1- Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

**3.g** Emission Limitation:
stack BL3 - 0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method:
The permittee may determine compliance with the lb PE/mmBtu allowable limitation above by multiplying an emission factor, from AP-42, Table 1.4-2 (revised 7/98), of 1.9 lbs PE (filterable)/mm cu.ft of natural gas by the emissions unit's maximum hourly natural gas consumption rate (2,250 cu.ft/hr), and then dividing by the maximum heat input rate of the emissions unit (2.25 mmBtu/hr).

If required, the permittee shall demonstrate compliance with the PE limitation above pursuant to OAC rule 3745-17-03(B)(9).

**3.h** Emission Limitations:
stack BL3 - 0.05 lb PE/hr, 0.2 TPY PE

Applicable Compliance Method:
Compliance may be determined by multiplying an emission factor, from AP-42, Table 1.4-2 (revised 7/98), of 1.9 lbs PE(filterable)/mm cu. ft. by a maximum natural gas consumption rate of 2,250 cu. ft/hr.

If required, the permittee shall demonstrate compliance with the hourly allowable PE emission limitation above pursuant to Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable PE limitation shall be assumed as long as compliance with the hourly allowable PE emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

## V. Testing Requirements (continued)

**3.i** Emission Limitations:
stack BL3 - 0.002 lb SO2/hr, 0.009 TPY SO2

Applicable Compliance Method:
The permittee may determine compliance by multiplying a sulfur grain loading of 0.25 gr/100 scf of natural gas [derived from a natural gas sulfur content based on material balance] by the maximum hourly natural gas consumption rate (3,100 scf/hr).

If required, the permittee shall demonstrate compliance with the hourly allowable SO2 limitation pursuant to Methods 1 - 4 and 6 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable SO2 limitation shall be assumed as long as compliance with the hourly allowable SO2 emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

**3.j** Emission Limitations:
stack BL3 - 0.2 lb NOx/hr, 1.0 TPY NOx

Applicable Compliance Method:
The permittee may determine compliance with the hourly allowable NOx emission limitation by multiplying the emission factor, from AP-42, Table 1.4-1 (revised 7/98), of 100 lbs NOx/mm cu. ft by the maximum natural gas consumption rate of 2,250 cu. ft/hr.

If required, the permittee shall demonstrate compliance with the hourly NOx emission limitation pursuant to Methods 1 - 4 and 7 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable NOx emission limitation shall be assumed as long as compliance with the hourly allowable NOx emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

**3.k** Emission Limitations:
stack BL3 - 0.047 lb CO/hr, 0.2 TPY CO

Applicable Compliance Method:
The permittee may determine compliance with the hourly CO emission limitation by multiplying the emission factor, from AP-42, Table 1.4-1 (revised 7/98), of 84 lbs CO/mm cu. ft. by the maximum natural gas consumption rate of 2,250 cu. ft/hr.

If required, the permittee shall demonstrate compliance with the hourly allowable CO emission limitation pursuant to Methods 1 - 4 and 10 of 40 CFR Part 60, Appendix A.

Compliance with the annual allowable CO limitation shall be assumed as long as compliance with the hourly allowable CO emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

## V. Testing Requirements (continued)

**3.l** Emission Limitations:
stack BL3 - 0.012 lb VOC/hr, 0.05 TPY VOC

Applicable Compliance Method:
The permittee may determine compliance with the hourly allowable VOC emission limitation by multiplying the emission factor, from AP-42, Table 1.4-2 (revised 7/98), of 5.5 lbs VOC/mm cu. ft. by the maximum natural gas consumption rate of 2,250 cu. ft./hr.

If required, the permittee shall demonstrate compliance with the hourly allowable VOC emission limitation pursuant to Methods 1 - 4 and 18, 25 or 25A of 40 CFR Part 60, Appendix A.

Compliance with the annual allowable VOC limitation shall be assumed as long as compliance with the hourly allowable VOC emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

**3.m** Emission Limitation:
stack BL3 - Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

## VI. Miscellaneous Requirements

**1.** The permittee cannot demonstrate compliance with the CO emission limitations established in PTI # 03-10822, which was issued on January 14, 1998. The PTI established the CO emission limitations based on the available AP-42 emission factors for natural gas combustion at that time. However, since the issuance of the PTI, the AP-42 emission factor for CO was revised [the emission factor increased from 1.6 to 3.51 lbs CO/mmBtu (AP-42, Section 3.2, Stationary Internal Combustion Sources (revised 7/00))], and hence, the permittee is currently operating the emissions unit in violation of the terms and conditions of the PTI. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a written request for an administrative modification to the PTI and an updated Emissions Activity Category (EAC) form within 2 months following the issuance of this permit.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| triethylene glycol, natural gas dehydrator No.1, with regeneration boiler and thermal oxidizer (TO) | none | none |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permit to install for this emissions unit (P002) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied 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: Benzene

TLV (ug/m3): 32,000
Maximum Hourly Emission Rate (lbs/hr): 0.95
Predicted 1 Hour Maximum Ground-Level Concentration at the Fence line (ug/m3): 35.86
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 760

Pollutant: Toluene

TLV (ug/m3): 188,000
Maximum Hourly Emission Rate (lbs/hr): 0.93
Predicted 1 Hour Maximum Ground-Level Concentration at the Fence line (ug/m3): 35.02
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 4500

**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:

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

**2.a** changes in the composition of the materials used (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;

**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 (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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.

**3.** 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:"

**3.a** a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

**3.b** documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

**3.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:** TEG DEHYDRATOR #2 (P003)

**Activity Description:** TEG DEHYDRATOR WITH REGENERATOR BOILER AND A THERMAL OXIDIZER AS CONTROL DEVICE

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| triethylene glycol, natural gas dehydrator No.2, with regeneration boiler and thermal oxidizer (TO) | OAC rule 3745-31-05 (PTI #03-13048) | emissions from the thermal oxidizer (stack T01):<br><br>0.007 lb particulate emissions (PE/)hr, 0.03 ton PE/yr<br><br>0.001 lb sulfur dioxide (SO2)/hr, 0.005 ton SO2/yr<br><br>0.11 lb nitrogen oxides (NOx)/hr, 0.48 ton NOx/yr<br><br>0.59 lb carbon monoxide (CO)/hr, 2.58 tons CO/yr<br><br>2.1 lb volatile organic compounds (VOC)/hr, 5.0 tons VOC/yr<br><br>2.08 tons benzene/yr<br><br>0.103 ton hexane/yr<br><br>2.04 tons toluene/yr<br><br>emissions from stack BL3:<br><br>0.05 lb PE/hr, 0.2 ton PE/yr<br><br>0.002 lb SO2/hr, 0.009 ton SO2/yr<br><br>0.2 lb NOx/hr, 0.9 ton NOx/yr<br><br>0.047 lb CO/hr, 0.2 ton CO/yr<br><br>0.012 lb VOC/hr, 0.05 ton VOC/yr |

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| | OAC rule 3745-17-10(B) | See A.I.2.a |
| | | 0.020 lb PE/mmBtu of total heat input (for stack BL3) |
| | OAC rule 3745-17-07(A) | Visible emissions shall not exceed 20% opacity, as a six minute average, except as provided by rule (for stack BL3). |
| | OAC rules 3745-23-06(B) and 3745-21-08(B) | See A.I.2.c. |
| | OAC rule 3745-18-06(A) | See A.I.2.d (for the boiler stack BL3). |
| | OAC rule 3745-18-06(E) | See A.I.2.e (for the thermal oxidizer stack T01). |
| | OAC rule 3745-21-07(G) | See A.I.2.f. |
| | OAC rule 3745-17-11(B) | See A.I.2.g (for stack T01). |
| | OAC rule 3745-17-07(A) | See A.I.2.h (for stack T01). |
| | 40 CFR, Part 63, Subpart HHH | See A.I.2.i. |

**2. Additional Terms and Conditions**

**2.a** The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-(10)(B) and 3745-17-07(A), 3745-21-07(G), 3745-23-06(B), 3745-21-08(B), 3745-18-06(A) and 3745-18-06(E) and 40 CFR, Part 63, Subpart HHH.

**2.b** The exhaust gases from the natural gas dehydrators, emission units P002 and P003, shall be vented, through a closed-vent system, to a TO that shall be capable of reducing the emissions of VOCs and HAPs by, at minimum, 95%, by weight.

[The closed-vent system shall be designed and operated with no detectable emissions.]

**2.c** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install # 03-13048.

**2.d** OAC rule 3745-18-06(A) does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned in this emissions unit is the standard, pipeline quality natural gas supplied to industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).

**2.e** There are no sulfur dioxide emission limitations established by OAC Chapter 3745-18 for equipment associated with this emissions unit that are not considered "fuel burning equipment" because the process weight rate is less than 1,000 pounds/hour.

**2.f** The emissions unit is designed to use only glycol, which is not a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

**2. Additional Terms and Conditions (continued)**

**2.g** The uncontrolled mass rate of PE* from Stack TO1 is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11 (A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01 (B)(14).

* The burning of natural gas is the only source of PE from this emissions unit.

**2.h** The emissions from Stack T01 are exempt from the visible PE limitations specified in OAC rule 3745-17-07 (A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

**2.i** The permittee shall comply with all applicable requirements of 40 CFR, Part 63, Subpart HHH, for this emissions unit. These requirements are listed in Part II - Specific Facility Terms and Conditions.

## II. Operational Restrictions

**1.** The average combustion temperature within the TO, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1200 degrees Fahrenheit.

**2.** The permittee shall follow the written standard operating and maintenance procedures for this emissions unit. These written procedures shall be available for inspection and review by the Director or his authorized representative.

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the TO when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of plus or minus 1% accuracy measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations.

The permittee shall perform an annual inspection of system components for visible emissions and leaks.

The permittee shall visually inspect the system components including, but not limited to, the closed-vent system, the entire length of ductwork, piping, connections to covers and control devices for evidence of visible defects such as holes in ductwork, piping or loose connections that may effect the ability of the system to operate with no detectable emissions. A visible hole, gap, tear, or split in the closed-vent system is defined as a leak and shall be repaired as soon as practicable. A first attempt shall be made no later than 5 calendar days after the leak is detected.

Repair of the leak shall be completed no later than 15 calendar days after the leak is detected.

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

**2.a** All 3-hour blocks of time during which the average combustion temperature within the TO, when the emissions unit was in operation, was less than 1200 degrees Fahrenheit.

**2.b** A log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation. The log shall also contain a record of the corrective action taken to repair the operating the equipment; and,

**2.c** A record of all startup, shutdown and malfunction events.

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

**3.** The permittee shall use Method 21of 40 CFR, Part 60, Appendix A to test each closed-vent system joint, seam, or other connection for any detectable emissions. For annual leak detection monitoring after the initial leak detection monitoring, the permittee is not required to monitor those closed-vent system components which continuously operate at a pressure below atmospheric pressure or those closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed pipe flange).

## IV. Reporting Requirements

**1.** The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the TO did not comply with the temperature limitation in Section A.II.1. The quarterly deviation reports shall be submitted in acordance with paragraph A.1.c of the General Terms and Conditions of this permit.

**2.** The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

## V. Testing Requirements

**1.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

**1.a** The emission testing shall be conducted within 3 months after issuance of this permit and within 6 months prior to permit expiration.

**1.b** The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for VOC and the thermal oxidizer destruction efficiency requirement of 95%, by weight. [An alternative means of demonstrating compliance is described in term A.V.2 below.]

**1.c** The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates for VOC:

i. Methods 1 - 4 and 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

ii. The test method(s) which must be employed to demonstrate compliance with the 95 percent, by weight, destruction efficiency for VOC's and HAP's.

The destruction efficiency shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the divisity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**1.d** The test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northwest District Office.

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

Personnel from the Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office.

**2.** As an alternative to demonstrating compliance with an emission test, the permittee may submit a design analysis which includes analysis of the vent stream characteristics and control device operating parameters for the TO. The design analysis shall include the vent stream composition, constituents concentrations, flow rates and shall establish the design minimum and average temperatures in the combustion zone and the combustion zone residence time.

If the permittee and Ohio EPA do not agree on a demonstration of control device performance using a design analysis, then the disagreement shall be resolved using the results of a performance test performed by the permittee in accordance with the methods outlined in term A.V.1. above.

**3.** Compliance with the emission limitations in the air emission summary shall be determined in accordance with the following method(s):

**3.a** Emission Limitations:
stack TO1 - 0.007 lb PE/hr, 0.03 TPY PE

Applicable Compliance Method:
Compliance may be determined by multiplying an emission factor, from AP-42, Table 1.4-2 (revised 7/98), of 1.9 lbs PE(filterable)/mm cu. ft. by a maximum natural gas consumption rate of 3,100 cu. ft/hr.

If required, the permittee shall demonstrate compliance with the hourly allowable PE limitation above pursuant to Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable PE limitation shall be assumed as long as compliance with the hourly allowable PE limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

## V. Testing Requirements (continued)

**3.b** Emission Limitations:
stack TO1 - 0.001 lb SO2/hr, 0.005 TPY SO2

Applicable Compliance Method:
The permittee may determine compliance with the hourly allowable SO2 emission limitation by multiplying a sulfur grain loading of 0.25 gr/100 standard cubic foot (scf) of natural gas [derived from a natural gas sulfur content based on a material balance] by the maximum hourly natural gas consumption rate (3,100 scf/hr), and then dividing by 7000.

If required, the permittee shall demonstrate compliance with the hourly allowable SO2 emission limitation pursuant to Methods 1 - 4 and 6 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable SO2 limitation shall be assumed as long as compliance with the hourly allowable SO2 emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

**3.c** Emission Limitations:
stack TO1 - 0.11 lb NOx/hr, 0.48 TPY NOx

Applicable Compliance Method:
The permittee may determine compliance with the hourly allowable NOx emission limitation by multiplying the NOx emission factor of 0.071 lb NOx/mmBtu (the emission factor was derived from the results of emission testing conducted on a similar 1400 degree Fahrenheit TO) by the maximum heat input rate of 3.1 mmBtu/hr.

If required, the permittee shall demonstrate compliance with the hourly allowable NOx emission limitation above pursuant to Methods 1 - 4 and 7 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable NOx limitation shall be assumed as long as compliance with the hourly allowable NOx emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

**3.d** Emission Limitations:
stack T01 - 0.59 lb CO/hr, 2.58 TPY CO

Applicable Compliance Method:
The permittee may determine compliance Emission Limitations:
stack TO1 - 0.11 lb NOx/hr, 0.48 TPY NOx

Applicable Compliance Method:
The permittee may determine compliance with the hourly allowable CO emission limitation by multiplying the CO emission factor of 0.38 lb CO/mmBtu (the emission factor was derived from the results of emission testing conducted on a similar 1400 degree Fahrenheit TO) by the maximum heat input rate of 3.1 mmBtu/hr.

If required, the permittee shall demonstrate compliance with the hourly allowable CO emission limitation pursuant to Methods 1 - 4 and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable CO emission limitation shall be assumed as long as compliance with the hourly allowable CO emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

## V. Testing Requirements (continued)

**3.e** Emission Limitations:
stack TO1- 1.14 lb VOC/hr, 5.0 TPY VOC

Applicable Compliance Method:
The permittee may determine compliance with the hourly allowable VOC emission limitation by using the VOC emission estimate software program GLYCalc (version 3) (from the Gas Research Institute) and a pressure of 700 psig and a water flow rate of 20 lbs/hr.

If required, the permittee shall demonstrate compliance with the hourly allowable VOC emission limitation pursuant to Methods 1 - 4 and 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable VOC limitation shall be assumed as long as compliance with the hourly allowable VOC emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

**3.f** Emission Limitation:
stack TO1- Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

**3.g** Emission Limitation:
stack BL3 - 0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method:
The permittee may determine compliance with the lb PE/mmBtu allowable limitation above by multiplying an emission factor, from AP-42, Table 1.4-2 (revised 7/98), of 1.9 lbs PE (filterable)/mm cu.ft of natural gas by the emissions unit's maximum hourly natural gas consumption rate (2,250 cu.ft/hr), and then dividing by the maximum heat input rate of the emissions unit (2.25 mmBtu/hr).

If required, the permittee shall demonstrate compliance with the PE limitation above pursuant to OAC rule 3745-17-03(B)(9).

**3.h** Emission Limitations:
stack BL3 - 0.05 lb PE/hr, 0.2 TPY PE

Applicable Compliance Method:
Compliance may be determined by multiplying an emission factor, from AP-42, Table 1.4-2 (revised 7/98), of 1.9 lbs PE(filterable)/mm cu. ft. by a maximum natural gas consumption rate of 2,250 cu. ft/hr.

If required, the permittee shall demonstrate compliance with the hourly allowable PE emission limitation above pursuant to Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable PE limitation shall be assumed as long as compliance with the hourly allowable PE emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

## V. Testing Requirements (continued)

**3.i** Emission Limitations:
stack BL3 - 0.002 lb SO2/hr, 0.009 TPY SO2

Applicable Compliance Method:
The permittee may determine compliance by multiplying a sulfur grain loading of 0.25 gr/100 scf of natural gas [derived from a natural gas sulfur content based on material balance] by the maximum hourly natural gas consumption rate (3,100 scf/hr).

If required, the permittee shall demonstrate compliance with the hourly allowable SO2 limitation pursuant to Methods 1 - 4 and 6 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable SO2 limitation shall be assumed as long as compliance with the hourly allowable SO2 emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

**3.j** Emission Limitations:
stack BL3 - 0.2 lb NOx/hr, 1.0 TPY NOx

Applicable Compliance Method:
The permittee may determine compliance with the hourly allowable NOx emission limitation by multiplying the emission factor, from AP-42, Table 1.4-1 (revised 7/98), of 100 lbs NOx/mm cu. ft by the maximum natural gas consumption rate of 2,250 cu. ft/hr.

If required, the permittee shall demonstrate compliance with the hourly NOx emission limitation pursuant to Methods 1 - 4 and 7 of 40 CFR, Part 60, Appendix A.

Compliance with the annual allowable NOx emission limitation shall be assumed as long as compliance with the hourly allowable NOx emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

**3.k** Emission Limitations:
stack BL3 - 0.047 lb CO/hr, 0.2 TPY CO

Applicable Compliance Method:
The permittee may determine compliance with the hourly CO emission limitation by multiplying the emission factor, from AP-42, Table 1.4-1 (revised 7/98), of 84 lbs CO/mm cu. ft. by the maximum natural gas consumption rate of 2,250 cu. ft/hr.

If required, the permittee shall demonstrate compliance with the hourly allowable CO emission limitation pursuant to Methods 1 - 4 and 10 of 40 CFR Part 60, Appendix A.

Compliance with the annual allowable CO limitation shall be assumed as long as compliance with the hourly allowable CO emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

## V. Testing Requirements (continued)

**3.l** Emission Limitations:
stack BL3 - 0.012 lb VOC/hr, 0.05 TPY VOC

Applicable Compliance Method:
The permittee may determine compliance with the hourly allowable VOC emission limitation by multiplying the emission factor, from AP-42, Table 1.4-2 (revised 7/98), of 5.5 lbs VOC/mm cu. ft. by the maximum natural gas consumption rate of 2,250 cu. ft./hr.

If required, the permittee shall demonstrate compliance with the hourly allowable VOC emission limitation pursuant to Methods 1 - 4 and 18, 25 or 25A of 40 CFR Part 60, Appendix A.

Compliance with the annual allowable VOC limitation shall be assumed as long as compliance with the hourly allowable VOC emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

**3.m** Emission Limitation:
stack BL3 - Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

## VI. Miscellaneous Requirements

**1.** The permittee cannot demonstrate compliance with the CO emission limitations established in PTI # 03-10822, which was issued on January 14, 1998. The PTI established the CO emission limitations based on the available AP-42 emission factors for natural gas combustion at that time. However, since the issuance of the PTI, the AP-42 emission factor for CO was revised [the emission factor increased from 1.6 to 3.51 lbs CO/mmBtu (AP-42, Section 3.2, Stationary Internal Combustion Sources (revised 7/00))], and hence, the permittee is currently operating the emissions unit in violation of the terms and conditions of the PTI. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a written request for an administrative modification to the PTI and an updated Emissions Activity Category (EAC) form within 2 months following the issuance of this permit.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| triethylene glycol, natural gas dehydrator No.2, with regeneration boiler and thermal oxidizer (TO) | none | none |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permit to install for this emissions unit (P002) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied 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: Benzene

TLV (ug/m3): 32,000
Maximum Hourly Emission Rate (lbs/hr): 0.95
Predicted 1 Hour Maximum Ground-Level Concentration at the Fence line (ug/m3): 35.86
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 760

Pollutant: Toluene

TLV (ug/m3): 188,000
Maximum Hourly Emission Rate (lbs/hr): 0.93
Predicted 1 Hour Maximum Ground-Level Concentration at the Fence line (ug/m3): 35.02
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 4500

**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:

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

**2.a** changes in the composition of the materials used (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;

**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 (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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.

**3.** 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:"

**3.a** a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

**3.b** documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

**3.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:** RECIP ENGINE/INTEGRAL COMPR #06701 (P004)

**Activity Description:** PRIME MOVER : A NATURAL GAS-FIRED RECIPROCATING ENGINE COMPRESSING NATURAL GAS.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 2,000 hp (19.1 mmBtu/hr), natural gas-fired large internal combustion engine | OAC rule 3745-17-11(B)(5)(b) | 0.062 lb particulate emissions (PE)/mmBtu of actual heat input (See A.I.2.c.) |
| | | 0.35 lb PE/mmBtu of actual heat input (See A.I.2.b.) |
| | OAC rule 3745-17-07(A) | Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-18-06(G) | Exempt, pursuant to OAC rule 3745-18-06(A) (See A.I.2.a.) |

**2. Additional Terms and Conditions**

**2.a** OAC rule 3745-18-06(A) does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned in this emissions unit is the standard, pipeline quality natural gas supplied to industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).

**2.b** The requirement to comply with this PE limitation shall terminate on the date the U.S. EPA approves the 0.062 lb/mmBtu actual heat input emission limitation as a revision to the Ohio State Implementation Plan (SIP) for particulate matter.

**2.c** This PE limitation shall be effective and federally enforceable on the date the U.S. EPA approves this PE limitation as a revision to the Ohio SIP for particulate matter.

### 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 a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## V. Testing Requirements

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

**1.a** Emission Limitations:
0.35 lb PE/mmBtu of actual heat input
0.062 lb PE/mmBtu of actual heat input

Applicable Compliance Method:
The permittee may determine compliance with the PE limitations above based on an emission factor from AP-42, Table 3.2-1 (revised 7/00) of 0.0384 lb PE (filterable)/mmBtu of actual heat input.

If required, the permittee shall demonstrate compliance with the PE limitations above in accordance with Methods in OAC rule 3745-17-03(B)(10).

**1.b** Emission Limitation:
Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** RECIP ENGINE/INTEGRAL COMPR #06702 (P005)

**Activity Description:** PRIME MOVER : A NATURAL GAS-FIRED RECIPROCATING ENGINE COMPRESSING NATURAL GAS.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 2,000 hp (19.1 mmBtu/hr), natural gas-fired large internal combustion engine | OAC rule 3745-17-11(B)(5)(b) | 0.062 lb particulate emissions (PE)/mmBtu of actual heat input (See A.I.2.c.) |
| | | 0.35 lb PE/mmBtu of actual heat input (See A.I.2.b.) |
| | OAC rule 3745-17-07(A) | Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-18-06(G) | Exempt, pursuant to OAC rule 3745-18-06(A) (See A.I.2.a.) |

**2. Additional Terms and Conditions**

**2.a** OAC rule 3745-18-06(A) does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned in this emissions unit is the standard, pipeline quality natural gas supplied to industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).

**2.b** The requirement to comply with this PE limitation shall terminate on the date the U.S. EPA approves the 0.062 lb/mmBtu actual heat input emission limitation as a revision to the Ohio State Implementation Plan (SIP) for particulate matter.

**2.c** This PE limitation shall be effective and federally enforceable on the date the U.S. EPA approves this PE limitation as a revision to the Ohio SIP for particulate matter.

### 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 a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## V. Testing Requirements

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

**1.a** Emission Limitations:
0.35 lb PE/mmBtu of actual heat input
0.062 lb PE/mmBtu of actual heat input

Applicable Compliance Method:
The permittee may determine compliance with the PE limitations above based on an emission factor from AP-42, Table 3.2-1 (revised 7/00) of 0.0384 lb PE (filterable)/mmBtu of actual heat input.

If required, the permittee shall demonstrate compliance with the PE limitations above in accordance with Methods in OAC rule 3745-17-03(B)(10).

**1.b** Emission Limitation:
Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** RECIP ENGINE/INTEGRAL COMPR #06703 (P006)

**Activity Description:** PRIME MOVER : A NATURAL GAS-FIRED RECIPROCATING ENGINE COMPRESSING NATURAL GAS.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 1,500 hp (14.5 mmBtu/hr), natural gas-fired large internal combustion engine | OAC rule 3745-17-11(B)(5)(b) | 0.062 lb particulate emissions (PE)/mmBtu of actual heat input (See A.I.2.c.) |
| | | 0.35 lb PE/mmBtu of actual heat input (See A.I.2.b.) |
| | OAC rule 3745-17-07(A) | Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-18-06(G) | Exempt, pursuant to OAC rule 3745-18-06(A) (See A.I.2.a.) |

**2. Additional Terms and Conditions**

**2.a** OAC rule 3745-18-06(A) does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned in this emissions unit is the standard, pipeline quality natural gas supplied to industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).

**2.b** The requirement to comply with this PE limitation shall terminate on the date the U.S. EPA approves the 0.062 lb/mmBtu actual heat input emission limitation as a revision to the Ohio State Implementation Plan (SIP) for particulate matter.

**2.c** This PE limitation shall be effective and federally enforceable on the date the U.S. EPA approves this PE limitation as a revision to the Ohio SIP for particulate matter.

### 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 a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## V. Testing Requirements

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

**1.a** Emission Limitations:
0.35 lb PE/mmBtu of actual heat input
0.062 lb PE/mmBtu of actual heat input

Applicable Compliance Method:
The permittee may determine compliance with the PE limitations above based on an emission factor from AP-42, Table 3.2-1 (revised 7/00) of 0.0384 lb PE (filterable)/mmBtu of actual heat input.

If required, the permittee shall demonstrate compliance with the PE limitations above in accordance with Methods in OAC rule 3745-17-03(B)(10).

**1.b** Emission Limitation:
Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** RECIP ENGINE/INTEGRAL COMPR #06704 (P007)

**Activity Description:** PRIME MOVER : A NATURAL GAS-FIRED RECIPROCATING ENGINE COMPRESSING NATURAL GAS.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 1,500 hp (14.8 mmBtu/hr), natural gas-fired large internal combustion engine | OAC rule 3745-17-11(B)(5)(b) | 0.062 lb particulate emissions (PE)/mmBtu of actual heat input (See A.I.2.c.) |
| | | 0.35 lb PE/mmBtu of actual heat input (See A.I.2.b.) |
| | OAC rule 3745-17-07(A) | Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-18-06(G) | Exempt, pursuant to OAC rule 3745-18-06(A) (See A.I.2.a.) |

**2. Additional Terms and Conditions**

**2.a** OAC rule 3745-18-06(A) does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned in this emissions unit is the standard, pipeline quality natural gas supplied to industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).

**2.b** The requirement to comply with this PE limitation shall terminate on the date the U.S. EPA approves the 0.062 lb/mmBtu actual heat input emission limitation as a revision to the Ohio State Implementation Plan (SIP) for particulate matter.

**2.c** This PE limitation shall be effective and federally enforceable on the date the U.S. EPA approves this PE limitation as a revision to the Ohio SIP for particulate matter.

### 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 a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## V. Testing Requirements

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

**1.a** Emission Limitations:
0.35 lb PE/mmBtu of actual heat input
0.062 lb PE/mmBtu of actual heat input

Applicable Compliance Method:
The permittee may determine compliance with the PE limitations above based on an emission factor from AP-42, Table 3.2-1 (revised 7/00) of 0.0384 lb PE (filterable)/mmBtu of actual heat input.

If required, the permittee shall demonstrate compliance with the PE limitations above in accordance with Methods in OAC rule 3745-17-03(B)(10).

**1.b** Emission Limitation:
Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** RECIP ENGINE/INTEGRAL COMPR #06705 (P008)

**Activity Description:** PRIME MOVER : A NATURAL GAS-FIRED RECIPROCATING ENGINE COMPRESSING NATURAL GAS.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 1,500 hp (14.8 mmBtu/hr), natural gas-fired large internal combustion engine | OAC rule 3745-17-11(B)(5)(b) | 0.062 lb particulate emissions (PE)/mmBtu of actual heat input (See A.I.2.c.) |
| | | 0.35 lb PE/mmBtu of actual heat input (See A.I.2.b.) |
| | OAC rule 3745-17-07(A) | Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-18-06(G) | Exempt, pursuant to OAC rule 3745-18-06(A) (See A.I.2.a.) |

**2. Additional Terms and Conditions**

**2.a** OAC rule 3745-18-06(A) does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned in this emissions unit is the standard, pipeline quality natural gas supplied to industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).

**2.b** The requirement to comply with this PE limitation shall terminate on the date the U.S. EPA approves the 0.062 lb/mmBtu actual heat input emission limitation as a revision to the Ohio State Implementation Plan (SIP) for particulate matter.

**2.c** This PE limitation shall be effective and federally enforceable on the date the U.S. EPA approves this PE limitation as a revision to the Ohio SIP for particulate matter.

### 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 a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## V. Testing Requirements

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

**1.a** Emission Limitations:
0.35 lb PE/mmBtu of actual heat input
0.062 lb PE/mmBtu of actual heat input

Applicable Compliance Method:
The permittee may determine compliance with the PE limitations above based on an emission factor from AP-42, Table 3.2-1 (revised 7/00) of 0.0384 lb PE (filterable)/mmBtu of actual heat input.

If required, the permittee shall demonstrate compliance with the PE limitations above in accordance with Methods in OAC rule 3745-17-03(B)(10).

**1.b** Emission Limitation:
Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** RECIP ENGINE/INTEGRAL COMPR #06706 (P009)

**Activity Description:** PRIME MOVER : A NATURAL GAS-FIRED RECIPROCATING ENGINE COMPRESSING NATURAL GAS.

## 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 2,000 hp (19.1 mmBtu/hr), natural gas-fired large internal combustion engine | OAC rule 3745-17-11(B)(5)(b) | 0.062 lb particulate emissions (PE)/mmBtu of actual heat input (See A.I.2.c.) |
| | | 0.35 lb PE/mmBtu of actual heat input (See A.I.2.b.) |
| | OAC rule 3745-17-07(A) | Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-18-06(G) | Exempt, pursuant to OAC rule 3745-18-06(A) (See A.I.2.a.) |

**2. Additional Terms and Conditions**

**2.a** OAC rule 3745-18-06(A) does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned in this emissions unit is the standard, pipeline quality natural gas supplied to industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).

**2.b** The requirement to comply with this PE limitation shall terminate on the date the U.S. EPA approves the 0.062 lb/mmBtu actual heat input emission limitation as a revision to the Ohio State Implementation Plan (SIP) for particulate matter.

**2.c** This PE limitation shall be effective and federally enforceable on the date the U.S. EPA approves this PE limitation as a revision to the Ohio SIP for particulate matter.

### 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 a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## V. Testing Requirements

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

**1.a** Emission Limitations:
0.35 lb PE/mmBtu of actual heat input
0.062 lb PE/mmBtu of actual heat input

Applicable Compliance Method:
The permittee may determine compliance with the PE limitations above based on an emission factor from AP-42, Table 3.2-1 (revised 7/00) of 0.0384 lb PE (filterable)/mmBtu of actual heat input.

If required, the permittee shall demonstrate compliance with the PE limitations above in accordance with Methods in OAC rule 3745-17-03(B)(10).

**1.b** Emission Limitation:
Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific 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.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

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