Ohio Environmental Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

11/23/2010

Certified Mail

| | |
|---|---|
| No | TOXIC REVIEW |
| No | PSD |
| No | SYNTHETIC MINOR TO AVOID MAJOR NSR |
| No | CEMS |
| Yes | MACT/GACT |
| No | NSPS |
| No | NESHAPS |
| No | NETTING |
| No | MAJOR NON-ATTAINMENT |
| No | MODELING SUBMITTED |

George Garcia
Americas Styrenics
925 County Road 1A
Ironton, OH 45638

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0744000173
Permit Number: P0107189
Permit Type: Administrative Modification
County: Lawrence

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of $70.00, made payable to "Ohio Treasurer Kevin Boyce," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Portsmouth City Health Dept., Air Pollution Unit. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA
Portsmouth; Kentucky; West Virginia

50 West Town Street, Suite 700
P.O. Box 1049
Columbus, OH 43216-1049

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Ohio | Environmental Protection Agency

# FINAL

# Division of Air Pollution Control
# Permit-to-Install
for
Americas Styrenics

Facility ID: 0744000173
Permit Number: P0107189
Permit Type: Administrative Modification
Issued: 11/23/2010
Effective: 11/23/2010

Ohio Environmental Protection Agency

**Division of Air Pollution Control**
**Permit-to-Install**
for
Americas Styrenics

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# Authorization

Facility ID: 0744000173
Facility Description:
Application Number(s): M0001034
Permit Number: P0107189
Permit Description: Administrative modification to remove reference to RCRA rule 40 CFR 266 Subpart H since EU's are no longer subject to this rule.
Permit Type: Administrative Modification
Permit Fee: $200.00
Issue Date: 11/23/2010
Effective Date: 11/23/2010

This document constitutes issuance to:

Americas Styrenics
925 County Road
1A
Ironton, OH 45638

of a Permit-to-Install for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Portsmouth City Health Dept., Air Pollution Unit
605 Washington Street
3rd Floor
Portsmouth, OH 45662
(740)353-5156

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director

# Authorization (continued)

Permit Number: P0107189
Permit Description: Administrative modification to remove reference to RCRA rule 40 CFR 266 Subpart H since EU's are no longer subject to this rule.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

| | |
|---|---|
| **Emissions Unit ID:** | **B010** |
| Company Equipment ID: | Dowtherm Boiler R-1 |
| Superseded Permit Number: | 07-00420 |
| General Permit Category and Type: | Not Applicable |
| **Emissions Unit ID:** | **B020** |
| Company Equipment ID: | Dowtherm Boiler R-3 |
| Superseded Permit Number: | 07-00420 |
| General Permit Category and Type: | Not Applicable |

# A. Standard Terms and Conditions

## 1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A.2.a), Severability Clause

(2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements

(3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements

(4) Standard Term and Condition A.9., Reporting Requirements

(5) Standard Term and Condition A.10., Applicability

(6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install

(7) Standard Term and Condition A.14., Public Disclosure

(8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(9) Standard Term and Condition A.16., Fees

(10) Standard Term and Condition A.17., Permit Transfers

## 2. Severability Clause

a) 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.

b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they 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 and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

## 3. 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 re-issuance, or modification.

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, revoked, or revoked and reissued, for cause. 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 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.

**4. 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:

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

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

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, 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.

c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Portsmouth City Health Dept., Air Pollution Unit.

(2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Portsmouth City Health Dept., Air Pollution Unit. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Portsmouth City Health Dept., Air Pollution Unit every six months, by January 31 and July 31 of each year for the previous six calendar months. 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.

(4) This permit is for an emissions unit located at a Title V facility. 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 are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

**5. 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, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Portsmouth City Health Dept., Air Pollution Unit in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

**6. Compliance Requirements**

a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this 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.

c) 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:

(1) 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.

(2) 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 ORC section 3704.08.

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

(4) 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.

d) The permittee shall submit progress reports to the Portsmouth City Health Dept., Air Pollution Unit 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:

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

(2) 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.

**7. Best Available Technology**

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

**8. 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.

**9. Reporting Requirements**

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Portsmouth City Health Dept., Air Pollution Unit.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Portsmouth City Health Dept., Air Pollution Unit. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

## 10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

## 11. Construction of New Sources(s) and Authorization to Install

a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

**12. Permit-To-Operate Application**

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be <u>obtained before</u> the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

**13. Construction Compliance Certification**

The applicant shall identify the following dates in the online facility profile for each new emissions unit identified in this permit.

a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.

b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

**14. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

**15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations**

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., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**16. 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. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

**17. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the “Owner/Contact Change” functionality in Air Services once the transfer is legally completed. The change must be submitted through Air Services within thirty days of the ownership transfer date.

**18. 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.

**19. 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.

# B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) None.

2. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart JJJ: B010 and B020. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

# C. Emissions Unit Terms and Conditions

**1. B010, Dowtherm Boiler R-1**

**Operations, Property and/or Equipment Description:**

9.0 MMBTU/hr natrual gas, no. 2 fuel oil and byproduct fuel fired boiler – administrative modification to remove the reference to 40 CFR Part 266, Subpart H

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| a. | OAC rule 3745-31-05(A)(3) | Emissions shall not exceed:<br><br>0.18 lb/hr of particulate emissions (PE)<br>0.79 tpy of PE<br>2.73 lbs/hr of nitrogen oxides (NOx)<br>11.96 tpy of NOx<br>3.66 lbs/hr of sulfur dioxide (SO2)<br>16.05 tpy of SO2<br>0.047 lb/hr of volatile organic compounds (VOC)<br>0.21 tpy of VOC<br>0.9 lb/hr of carbon monoxide (CO)<br>3.94 tpy of CO<br><br>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07, 3745-17-10, 3745-18-06 and 40 CFR Part 63,Subpart JJJ.<br><br>See b)(2)a through b)(2)e. |
| b. | OAC rule 3745-17-07(A)(1) | Visible particulate emissions from any stack shall not exceed twenty percent opacity as a six minute average, except as provided by rule |
| c. | OAC rule 3745-17-10(B)(1) | Particulate emissions shall not exceed 0.020 lb/mmBtu of actual heat input |
| d. | OAC rule 3745-18-06(B) | See b)(2)b. |
| e. | 40 CFR Part 63, Subpart JJJ | See b)(2)c. and b)(2)d. |

(2) Additional Terms and Conditions

a. Compliance with the terms and conditions of this PTI will satisfy the Best Available Technology requirements for this source.

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

c. This emissions unit is used as a control device for emissions units P002 (Polystyrene Polymerization Process - Train #1) and P010 (Polystyrene Polymerization Process Train #2). Emissions units P002 and P010 are subject to the requirements of 40 CFR Part 63, Subpart JJJ. Because this emissions unit is used as a control device, it is also subject to the requirements of 40 CFR Part 63, Subpart JJJ. (see B.2)

d. The permittee shall reduce emissions from emissions units P002 and P010 process vents, as defined in 40 CFR 63.1312, by 98 weight percent or to a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent. If the permittee elects to comply with the 20 ppmv standard, the concentration shall include a correction to 3 percent oxygen only when supplemental combustion air is used to combust the emissions. Compliance shall be based on either organic HAP or TOC.

e. The company has demonstrated that sulfur content is negligible in byproduct fuel. Therefore, it is not necessary to develop monitoring, recordkeeping and/or reporting requirements to ensure compliance.

c) Operational Restrictions

(1) No. 2 fuel oil shall be burned for emergency backup only when natural gas is unavailable.

(2) No. 2 fuel oil shall have a sulfur content of less than or equal to 0.4 percent, by weight.

(3) The amount of fuel burned in this emissions unit shall not exceed 50% / 50% mix of natural gas (or no. 2 fuel oil as emergency backup) and byproduct fuel. This 50% byproduct fuel equates to 228 lbs/hr of byproduct waste fuel.

(4) The no. 2 fuel oil shall have a sulfur content and heat content that meets the allowable SO2 emission limitation of 3.66 lbs/hr.

(5) If a boiler or heater is used to comply with the percent reduction requirement or concentration limit specified in b)(2)d. above, then the vent stream shall be introduced into the flame zone of such a device.

d) Monitoring and/or Recordkeeping Requirements

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

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

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

(3) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emission unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emissions incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

If the weekly checks show emissions that are representative of normal operation for 1 operating quarter, the required frequency of visible emission checks may be reduced to biweekly (once every two weeks, when the emissions unit is in operation). If a subsequent check by the permittee or an Ohio EPA inspector indicates emissions that are not representative of normal operation, the frequency of emission checks shall revert back to weekly until such time as there is 1 operating quarter of normal visible emissions.

(4) See 40 CFR Part 63, Subpart JJJ.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the byproduct waste fuel usage limitation describes in c)(3).

(2) The permittee shall submit quarterly deviation (excursion) reports that identify all times when a shipment of oil is received which exceeds the 0.4 percent, by weight, sulfur content limitation.

(3) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the 3.66 lbs/hr SO2 emission limitation based on the calculations required in d)(2) for no. 2 fuel oil.

(4) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

These reports shall be submitted to the Portsmouth Local Air Agency by January 31 and July 31 of each year and shall cover the previous 6-month period.

(5) See 40 CFR Part 63, Subpart JJJ.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>:

20% opacity as a 6-minute average

<u>Applicable Compliance Method</u>:

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

b. <u>Emission Limitation</u>:

0.047 lb/hr of VOC

0.21 tpy of VOC

<u>Applicable Compliance Method</u>:

Compliance may be demonstrated by multiplying the VOC emission factor in lb/mmscf of fuel fired, by the maximum quantity of fuel burned per hour, in

mmscf. The VOC emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

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

c. Emission Limitation:

2.73 lbs/hr of NOx

11.96 tpy of NOx

Applicable Compliance Method:

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

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

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

d. Emission Limitation:

0.18 lb/hr of particulate emissions

0.79 tpy of particulate emissions

Applicable Compliance Method:

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

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

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

e. Emission Limitation:

0.9 lb/hr of carbon monoxide (CO)

3.94 tpy of CO

Applicable Compliance Method:

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

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

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

f. Emission Limitation:

3.66 lbs/hr of SO2

16.05 tpy of SO2

Applicable Compliance Method:

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

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

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

g. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be demonstrated based upon compliance with 40 CFR Part 63, Subpart JJJ.

g) Miscellaneous Requirements

(1) None.

**2. B020, Dowtherm Boiler R-3**

**Operations, Property and/or Equipment Description:**

9.0 MMBTU/hr natrual gas, no. 2 fuel oil and byproduct fired boiler – administrative modification to remove the reference to 40 CFR Part 266, Subpart H.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| a. | OAC rule 3745-31-05(A)(3) | Emissions shall not exceed:<br><br>0.18 lb/hr of particulate emissions (PE)<br>0.79 tpy of PE<br>2.73 lbs/hr of nitrogen oxides (NOx)<br>11.96 tpy of NOx<br>3.66 lbs/hr of sulfur dioxide (SO2)<br>16.05 tpy of SO2<br>0.047 lb/hr of volatile organic compounds (VOC)<br>0.21 tpy of VOC<br>0.9 lb/hr of carbon monoxide (CO)<br>3.94 tpy of CO<br><br>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07, 3745-17-10, 3745-18-06 and 40 CFR Part 63,Subpart JJJ.<br><br>See b)(2)a through b)(2)e. |
| b. | OAC rule 3745-17-07(A)(1) | Visible particulate emissions from any stack shall not exceed twenty percent opacity as a six minute average, except as provided by rule |
| c. | OAC rule 3745-17-10(B)(1) | Particulate emissions shall not exceed 0.020 lb/mmBtu of actual heat input |
| d. | OAC rule 3745-18-06(B) | See b)(2)b. |
| e. | 40 CFR Part 63, Subpart JJJ | See b)(2)c. and b)(2)d. |

(2) Additional Terms and Conditions

a. Compliance with the terms and conditions of this PTI will satisfy the Best Available Technology requirements for this source.

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

c. This emissions unit is used as a control device for emissions units P002 (Polystyrene Polymerization Process - Train #1) and P010 (Polystyrene Polymerization Process Train #2). Emissions units P002 and P010 are subject to the requirements of 40 CFR Part 63, Subpart JJJ. Because this emissions unit is used as a control device, it is also subject to the requirements of 40 CFR Part 63, Subpart JJJ. (see B.2)

d. The permittee shall reduce emissions from emissions units P002 and P010 process vents, as defined in 40 CFR 63.1312, by 98 weight percent or to a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent. If the permittee elects to comply with the 20 ppmv standard, the concentration shall include a correction to 3 percent oxygen only when supplemental combustion air is used to combust the emissions. Compliance shall be based on either organic HAP or TOC.

e. The company has demonstrated that sulfur content is negligible in byproduct fuel. Therefore, it is not necessary to develop monitoring, recordkeeping and/or reporting requirements to ensure compliance.

c) Operational Restrictions

(1) No. 2 fuel oil shall be burned for emergency backup only when natural gas is unavailable.

(2) No. 2 fuel oil shall have a sulfur content of less than or equal to 0.4 percent, by weight.

(3) The amount of fuel burned in this emissions unit shall not exceed 50% / 50% mix of natural gas (or no. 2 fuel oil as emergency backup) and byproduct fuel. This 50% byproduct fuel equates to 228 lbs/hr of byproduct waste fuel.

(4) The no. 2 fuel oil shall have a sulfur content and heat content that meets the allowable SO2 emission limitation of 3.66 lbs/hr.

(5) If a boiler or heater is used to comply with the percent reduction requirement or concentration limit specified in b)(2)d. above, then the vent stream shall be introduced into the flame zone of such a device.

d) Monitoring and/or Recordkeeping Requirements

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

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

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

(3) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emission unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emissions incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

If the weekly checks show emissions that are representative of normal operation for 1 operating quarter, the required frequency of visible emission checks may be reduced to biweekly (once every two weeks, when the emissions unit is in operation). If a subsequent check by the permittee or an Ohio EPA inspector indicates emissions that are not representative of normal operation, the frequency of emission checks shall revert back to weekly until such time as there is 1 operating quarter of normal visible emissions.

(4) See 40 CFR Part 63, Subpart JJJ.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the byproduct waste fuel usage limitation describes in c)(3).

(2) The permittee shall submit quarterly deviation (excursion) reports that identify all times when a shipment of oil is received which exceeds the 0.4 percent, by weight, sulfur content limitation.

(3) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the 3.66 lbs/hr SO2 emission limitation based on the calculations required in d)(2) for no. 2 fuel oil.

(4) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

These reports shall be submitted to the Portsmouth Local Air Agency by January 31 and July 31 of each year and shall cover the previous 6-month period.

(5) See 40 CFR Part 63, Subpart JJJ.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>:

20% opacity as a 6-minute average

<u>Applicable Compliance Method</u>:

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

b. <u>Emission Limitation</u>:

0.047 lb/hr of VOC

0.21 tpy of VOC

<u>Applicable Compliance Method</u>:

Compliance may be demonstrated by multiplying the VOC emission factor in lb/mmscf of fuel fired, by the maximum quantity of fuel burned per hour, in

mmscf. The VOC emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

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

c. Emission Limitation:

2.73 lbs/hr of NOx

11.96 tpy of NOx

Applicable Compliance Method:

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

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

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

d. Emission Limitation:

0.18 lb/hr of particulate emissions

0.79 tpy of particulate emissions

Applicable Compliance Method:

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

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

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

e. Emission Limitation:

0.9 lb/hr of carbon monoxide (CO)

3.94 tpy of CO

Applicable Compliance Method:

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

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

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

f. Emission Limitation:

3.66 lbs/hr of SO2

16.05 tpy of SO2

Applicable Compliance Method:

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

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

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

g. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be demonstrated based upon compliance with 40 CFR Part 63, Subpart JJJ.

g) Miscellaneous Requirements

(1) None.