



State of Ohio Environmental Protection Agency

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P.O. Box 1049  
Columbus, OH 43216-1049

10/7/2008

Certified Mail

George Garcia  
Americas Styrenics, LLC  
17401 State Route Seven South  
17401 State Route Seven South  
Marietta, OH 45750

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL  
Facility ID: 0684020001  
Permit Number: P0103699  
Permit Type: Administrative Modification  
County: Washington

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
Yes	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

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.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC 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 Ohio EPA DAPC, Southeast District Office. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page <http://www.epa.state.oh.us/dapc>.

Sincerely,

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

Cc: U.S. EPA Region 5 Via E-Mail Notification  
Ohio EPA DAPC, Southeast District Office

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director





**State of Ohio Environmental Protection Agency  
Division of Air Pollution Control**

**FINAL**

**Air Pollution Permit-to-Install  
for  
Americas Styrenics, LLC**

Facility ID: 0684020001  
Permit Number: P0103699  
Permit Type: Administrative Modification  
Issued: 10/7/2008  
Effective: 10/7/2008





State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Air Pollution Permit-to-Install**  
for  
Americas Styrenics, LLC

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State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0103699  
**Facility ID:** 0684020001  
**Effective Date:** 10/7/2008

## Authorization

Facility ID: 0684020001  
Facility Description: Polystyrene Plastic Manufacturer  
Application Number(s): A0035615  
Permit Number: P0103699  
Permit Description: This is an administrative modification due to update emission factors based on site specific stack testing.  
Permit Type: Administrative Modification  
Permit Fee: \$500.00  
Issue Date: 10/7/2008  
Effective Date: 10/7/2008

This document constitutes issuance to:

Americas Styrenics, LLC  
17401 State Route Seven South  
17401 State Route Seven South  
Marietta, OH 45750

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:

Ohio EPA DAPC, Southeast District Office  
2195 Front Street  
Logan, OH 43138  
(740)385-8501

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



State of Ohio Environmental Protection Agency  
 Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0103699  
**Facility ID:** 0684020001  
**Effective Date:** 10/7/2008

## Authorization (continued)

Permit Number: P0103699  
 Permit Description: This is as administrative modification due to update emission factors based on site specific stack testing.

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

<b>Emissions Unit ID:</b>	<b>P003</b>
Company Equipment ID:	Process Line 14
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0103699  
**Facility ID:** 0684020001  
**Effective Date:** 10/7/2008

## **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 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 Ohio EPA DAPC, Southeast District Office.



(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 Ohio EPA DAPC, Southeast District Office. 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 Ohio EPA DAPC, Southeast District Office 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 Ohio EPA DAPC, Southeast District Office 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 Ohio EPA DAPC, Southeast District Office 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 Ohio EPA DAPC, Southeast District Office.
- 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 Ohio EPA DAPC, Southeast District Office. 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 through completion of the annual PER covering the last period of operation 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 PER 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 PER, 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 obtained before 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 Ohio EPA DAPC, Southeast District Office must be notified in writing of any transfer of this permit.

**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.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0103699  
**Facility ID:** 0684020001  
**Effective Date:** 10/7/2008

## **B. Facility-Wide Terms and Conditions**



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0103699  
**Facility ID:** 0684020001  
**Effective Date:** 10/7/2008

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 emission unit in this permit is subject to 40 CFR Part 63, Subpart JJJ: P003. 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.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0103699  
**Facility ID:** 0684020001  
**Effective Date:** 10/7/2008

## **C. Emissions Unit Terms and Conditions**



**1. P003, Process Line 14**

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

Polystyrene production line 14 controlled with condensers, cyclone scrubber (pellet dryers), dust collector (pellet conveyors) and hot oil heaters (maximum capacity of 29,000 lbs/hr). For the purpose of 40 CFR Part 63, Subpart JJJ [63.1310], a Thermoplastic Product Process Unit (TPPU) means a collection of equipment assembled and connected by hard-piping or ductwork, used to process raw materials and to manufacture a thermoplastic product as its primary product. This collection of equipment includes unit operations; recovery operations equipment, process vents; equipment identified in 63.149; storage vessels, as determined in 63.1310(g); and the equipment that is subject to the equipment leak provisions as specified in 63.1331. Utilities, lines and equipment not containing process fluids, and other non-process lines, such as heating and cooling systems which do not combine their materials with those in the processes they serve, are not part of the thermoplastic product process unit. A TPPU consists of more than one unit operation.

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

- (i) Each waste management unit;
  - (ii) Maintenance wastewater;
  - (iii) Each heat exchange system; and
  - (iv) Equipment required by, or utilized as a method of compliance with, this subpart which may include control devices and recovery devices.
- 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 operations(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. 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)	Total point source volatile organic emissions (VOC) emissions shall not exceed 0.20 lb/hr and 0.9 tpy.  Total fugitive VOC emissions shall not exceed 3.61 lbs/hr and 15.8 tpy.  Particulate emissions (PE) shall not exceed 2.66 lbs/hr and 11.6 tons/yr.  Nitrogen oxide (NOx) emissions shall not exceed 2.40 lbs/hr and 10.5 tons/yr.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Total carbon monoxide (CO) emissions shall not exceed 0.37 lbs/hr and 1.6 tons/yr.</p> <p>Total sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 1.54 lbs/hr and 6.8 tons/yr.</p> <p>The following individual toxic pollutant limitations are included in the VOC emissions limitations above:</p> <p>Styrene emissions (point source and fugitive) shall not exceed 2.09 lbs/hr and 9.2 tons/yr;</p> <p>Toluene emissions (point source and fugitive) shall not exceed 1.45 lb/hr and 6.4 tons/yr;</p> <p>Cumene emissions (point source and fugitive) shall not exceed 0.13 lb/hr and 0.6 ton/yr;</p> <p>Ethylbenzene emissions (fugitive) shall not exceed 0.01 lb/hr and 0.06 ton/yr; and</p> <p>Xylene emissions (fugitive) shall not exceed 0.10 lb/hr and 0.43 ton/yr.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), OAC rule 3745-11(B)(1), OAC rule 3745-21-09(CC), OAC rule 3745-21-09(DD), 40 CFR Part 63, Subpart JJJ, and 40 CFR Part 63, Subpart H.</p>
(b)	OAC rule 3745-17-07(A)	Visible particulate emissions from the cyclone scrubber, dust collector and hot oil heater exhaust stacks shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
(c)	OAC rule 3745-17-11(B)(1)	The requirements specified by this applicable rule are equivalent to or less stringent than the requirements specified by OAC rule 3745-31-05(A).
(d)	NSPS 40 CFR 60 Subpart DDD	Per 40 CFR 63.1311(i)(1), after June 19, 2001 an existing affected source producing polystyrene using a continuous process and subject to 40 CFR 63, Subpart JJJ are required to comply with only the provisions of Subpart JJJ and shall no longer be subject to 40 CFR 60, Subpart DDD.
(e)	NSPS 40 CFR Subpart VV	Per 40 CFR 63.1311(k), after June 19, 2001



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		an existing affected source subject to 40 CFR 63, Subpart JJJ is required to comply only with the provisions of Subpart JJJ and shall no longer be subject to 40 CFR 60, Subpart DDD.
(f)	OAC rule 3745-21-09(CC)	The requirements specified by this applicable rule are less stringent than the requirements specified by OAC rule 3745-31-05(A)(3).
(g)	OAC rule 3745-21-09 (DD)	The requirements specified by this applicable rule are equivalent to or less stringent than the requirements specified by 40 CFR Part 63, Subpart JJJ.
(h)	40 CFR Part 63, Subpart JJJ (40 CFR 63.1310-1336)  [The group of TPPUs and associated equipment at this facility is an existing affected source as defined in 40 CFR 63.1310.]	The permittee shall reduce the hazardous air pollutants (HAP) or total organic carbon (TOC) emissions from all process vents, as defined in 40 CFR 63.1312, in a combustion device to achieve 98 weight percent reduction or to achieve a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent. If 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 may be based on either organic HAP or TOC.  [63.1316(c)(1)(iii)(A)]
(i)	40 CFR Part 63, Subpart H (40 CFR 63.160-183)	The permittee shall comply with the equipment leak detection requirements in 40 CFR Part 63, Subpart H.  (40 CFR Part 63.1331(a))
(j)	40 CFR 63.1-15 [40 CFR Part 63.1335(b) and 63.160(g)(3)]	Table 1 to Subpart JJJ of 40 CFR Part 63 – Applicability of General Provisions to Subpart JJJ Affected Sources shows which parts of the General Provisions in 40 CFR 63.1-15 apply.  Table 4 to Subpart H of 40 CFR Part 63 - Applicable 40 CFR Part 63 General Provisions shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

a. None.



- c) Operational Restrictions
  - (1) See 40 CFR Part 63, Subpart JJJ (40 CFR 63.1310-1336).
  - (2) See 40 CFR Part 63, Subpart H (40 CFR 63.160-183).
- d) Monitoring and/or Recordkeeping Requirements
  - (1) For each day during which the permittee burns a fuel other than natural gas, #2 fuel oil, styrene distillate, styrene tars, and/or other fuels authorized by the Ohio EPA Southeast District Office in the hot oil heaters associated with this emissions unit, the permittee shall maintain a record of the type and quantity of such fuel burned.  
  
Other fuels may be burned provided that the permittee obtains prior authorization from the Ohio EPA Southeast District Office, obtains any required permit modifications, and demonstrates compliance with all permit requirements. Emission testing may be requested by the Ohio EPA Southeast District Office.
  - (2) The permittee shall collect and record the following information each month for this emissions unit:
    - a. The amount of polystyrene produced, in pounds and tons;
    - b. the total hours of polystyrene production; and,
    - c. the average hourly polystyrene production rate for the month, in pounds and tons (i.e., (a)/(b)).

(Note: Polystyrene production hours include any time when one or more production line(s) associated with this emissions unit is(are) in operation.)
  - (3) Each calendar year, the permittee shall collect and record the annual polystyrene production rate, in pounds per year and tons per year, for this emissions unit.
  - (4) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the cyclone scrubber, dust collector and hot oil heater exhaust stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
    - a. the color of the emissions;
    - b. whether the emissions are representative of normal operations;
    - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
    - d. the total duration of any visible emission incident; and
    - e. any corrective actions taken to minimize or eliminate the visible emissions.



If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission 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.

- (5) See 40 CFR Part 63, Subpart JJJ (40 CFR 63.1310-1336).
- (6) See 40 CFR Part 63, Subpart H (40 CFR 63.160-183).

e) Reporting Requirements

- (1) The permittee shall submit semiannual deviation (excursion) reports that identify each day when a fuel other than natural gas, styrene distillate, styrenic tars, and/or other fuel authorized by the Ohio EPA Southeast District Office was burned in the hot oil heaters associated with this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month periods.
- (3) See 40 CFR Part 63, Subpart JJJ (40 CFR 63.1310-1336).
- (4) See 40 CFR Part 63, Subpart H (40 CFR 63.160-183).

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. Emission Limitation:

Total point source VOC emissions shall not exceed 0.20 lb/hr and 0.9 tpy.

Applicable Compliance Method:

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the average hourly polystyrene rate (pounds/hr) in d)(2)(c). by the permittee-supplied VOC emission factor of 0.003 pound per 1,000 pounds of product to obtain the total point source VOC emissions, in lb/hr. The emission factor shall be updated whenever additional testing is performed.



Organic compound emissions shall be determined according to test Methods 1 - 4, and 18, 25, or 25A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

Compliance with the annual emission limitation shall be demonstrated by multiplying the annual polystyrene production rate (pounds per year) in d)(3) by the permittee supplied VOC emission factor, established during the most recent emission tests, and by 0.0005 ton/lb to obtain the annual point source VOC emissions, in tpy.

b. Emissions Limitation:

Total fugitive VOC emissions shall not exceed 3.61 lbs/hr and 15.8 tpy.

Applicable Compliance Method:

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the average hourly polystyrene production rate (tons/hr) in d)(2)(c) by the permittee supplied VOC emission factor of 0.2888 pound per ton of product (Chevron Air Emission Inventory Report, Radian Corporation 1995) to obtain the total fugitive VOC emissions, in lbs/hr.

Compliance with the annual emission limitation shall be demonstrated by multiplying the annual polystyrene production rate (tpy) in d)(3) by the permittee supplied VOC emission factor, established during the most recent emission tests, and by 0.0005 ton/lb to obtain the annual fugitive VOC emissions, in tpy.

c. Emission Limitation:

Total PE shall not exceed 2.66 lbs/hr and 11.6 tons/yr.

Applicable Compliance Method:

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the average hourly polystyrene rate (pounds/hr) in d)(2)(c) by the permittee-supplied PM emission factor of 0.004 pound per 1,000 pounds of product to obtain the total point source PM emissions, in lb/hr. The emission factor shall be updated whenever additional testing is performed.

Particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

Compliance with the annual emission limitation shall be demonstrated by multiplying the annual polystyrene production rate (pounds per year) in d)(3) by the emissions unit specific particulate emission factor, established during the most recent emission tests, and by 0.0005 ton/lb to obtain the annual particulate emissions, in tpy.



d. Emission Limitation:

NOx emission shall not exceed 2.40 lbs/hr and 10.5 tpy.

Applicable Compliance Method:

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the average hourly polystyrene rate (pounds/hr) in d)(2)(c) by the permittee-supplied NOx emission factor of 0.006 pound per 1,000 pounds of product to obtain the total point source NOx emissions, in lb/hr. The emission factor shall be updated whenever additional testing is performed.

Nitrogen oxides emissions shall be determined according to test Methods 1 - 4, and 7 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

Compliance with the annual emission limitation shall be demonstrated by multiplying the annual polystyrene production rate (pounds per year) in d)(3) by the emission unit specific NOx emission factor, in pound NOx per 1,000 pounds of product, established during the most recent emission tests, and by 0.0005 ton/lb to obtain the annual NOx emissions in tpy.

e. Emission Limitation:

CO emissions shall not exceed 1.02 lbs/hr and 4.5 tpy.

Applicable Compliance Method:

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the average hourly polystyrene rate (pounds/hr) in d)(2)(c) by the permittee supplied CO emission factor of 0.0004 pound per 1,000 pounds of product to obtain the total point source CO emissions, in lb/hr. The emission factor shall be updated whenever additional testing is performed.

Compliance with the annual emission limitation shall be demonstrated by multiplying the annual polystyrene production rate (pounds per year) in d)(3) by the emissions unit-specific CO emission factor, in pound of CO per 1,000 pounds of product, established during the most recent emission tests, and by 0.0005 ton/lb to obtain the annual CO emissions, in tpy.

f. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 3.37 lbs/hr and 14.8 tpy.

Applicable Compliance Method:

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the average hourly polystyrene rate (pounds/hr) in d)(2)(c) by the permittee supplied SO<sub>2</sub> emission factor of 0.02 pound per 1,000 pounds of product to obtain the total point source SO<sub>2</sub> emissions, in lb/hr. The emission factor shall be updated whenever additional testing is performed.



Compliance with the annual emission limitation shall be demonstrated by multiplying the annual polystyrene production rate (pounds per year) in d)(3) by the emissions unit-specific SO<sub>2</sub> emission factor, in pound of SO<sub>2</sub> per 1,000 pounds of product, established during the most recent emission tests, and by 0.0005 ton/lb to obtain the annual SO<sub>2</sub> emissions, in tpy.

g. Emission Limitation:

Styrene emissions shall not exceed 2.20 lbs/hr and 9.7 tpy.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitation may be demonstrated by multiplying the average hourly polystyrene production rate (pounds/hr) in d)(2)(c) by the permittee supplied styrene emission factor of 0.0005 pound per 1,000 pounds of product to obtain the styrene emissions, in lbs/hr.

Compliance with the annual emission limitation shall be demonstrated by multiplying the annual polystyrene production rate (pounds per year) in d)(3). by the permittee supplied styrene emission factor, in pound of styrene per 1,000 pounds of product, established during the most recent emission tests, and by 0.0005 ton/lb to obtain the annual styrene emissions, in tpy.

h. Emission Limitation:

Toluene emissions shall not exceed 0.49 lb/hr and 2.1 tpy.

Applicable Compliance Method:

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the average hourly polystyrene production rate (pounds/hr) in d)(2)(c). by the permittee-supplied toluene emission factor of 0.0005 pound per 1,000 pounds of product , established during the most recent stack tests, to obtain the toluene emissions, in lb/hr.

Compliance with the annual emission limitation shall be demonstrated by multiplying the annual polystyrene production rate (pounds per year) in section d)(3) by the permittee supplied toluene emission factor, in pound of toluene per 1,000 pounds of product, established during the most recent emissions tests, and by 0.0005 ton/lb to obtain the annual toluene emissions, in tpy.

i. Emission Limitation:

Cumene emissions shall not exceed 0.18 lb/hr and 0.8 tpy.

Applicable Compliance Method:

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the average hourly polystyrene production rate (pounds/hr) in section d)(2)(c) by the permittee supplied cumene emission factor of 0.0006 pound per 1,000 pounds of product to obtain the cumene emissions, in lb/hr.



Compliance with the annual emission limitation shall be demonstrated by multiplying the annual polystyrene production rate (pounds per year) in section d)(3) by the permittee supplied cumene emission factor, in pound of cumene per 1,000 pounds of product established during the most recent emissions tests, and by 0.0005 ton/lb to obtain the annual cumene emissions, in tpy.

j. Emission Limitation:

Ethylbenzene emissions shall not exceed 0.01 lb/hr and 0.06 tpy.

Applicable Compliance Method:

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the average hourly polystyrene production rate (pounds/hr) in d)(2)(c). by the permittee supplied ethylbenzene emission factor of 0.0005 pound per 1,000 pounds of product to obtain the ethylbenzene emissions, in lb/hr.

Compliance with the annual emission limitation shall be demonstrated by multiplying the annual polystyrene production rate (pounds per year) in d)(3). by the permittee supplied ethylbenzene emission factor, established during the most recent emissions test in pound of ethylbenzene per 1,000 pounds of product, and by 0.0005 ton/lb to obtain the annual ethylbenzene emissions, in tpy.

k. Emission Limitation:

Xylene emissions shall not exceed 0.10 lb/hr and 0.43 tpy.

Applicable Compliance Method:

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the average hourly polystyrene production rate (pounds/hr) in d)(2)(c) by the permittee supplied xylene emission factor of 0.0005 pound per 1,000 pounds of product to obtain the xylene emissions, in lb/hr.

Compliance with the annual emission limitation shall be demonstrated by multiplying the annual polystyrene production rate (pounds per year) in d)(3) by the permittee supplied xylene emission established during the most recent emission tests, in pound of xylene per 1,000 pound of product, and by 0.0005 ton/lb to obtain the annual xylene emissions, in tpy.

l. Emission Limitation:

Visible particulate emissions from the cyclone scrubber, dust collector and hot oil heater exhaust stacks shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Limitation:

If required, visible particulate emissions shall be determined according to USEPA Method 9.



m. Emission Limitation:

The permittee shall reduce the hazardous air pollutants (HAP) or total organic carbon (TOC) emissions from all process vents, as defined in 40 CFR 63.1312, in a combustion device to achieve 98 weight percent reduction or to achieve a concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent. If 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 may be based on either organic HAP or TOC.

Applicable Compliance Method:

Polystyrene Affected Sources- Testing and Compliance Demonstration Provisions

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

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. If required, emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for VOC, PE and NOx. For each pollutant, compliance with the combined emission limitation for P001 and P003 shall be deemed as compliance with the individual emission limitation for each unit. For operational reasons, it is not practicable to perform emissions testing for each unit individually.

b. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for PE, Methods 1-5 of 40 CFR Part 60, Appendix A;

for NOx, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A; and,

for VOC, Methods 1-4 and 18, 25 or 25A of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

d. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the



proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

- e. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- f. 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 appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

- (1) None.