



John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

1/4/2013

Certified Mail

Joe Winch  
AS AMERICA, INC.-SALEM, OH PLANT  
605 S. Ellsworth Avenue  
Salem, OH 44460

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)
	SYNTHETIC MINOR TO AVOID MAJOR GHG

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0215090011  
Permit Number: P0111893  
Permit Type: OAC Chapter 3745-31 Modification  
County: Columbiana

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO) for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, The Morning Journal. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall  
Permit Review/Development Section  
Ohio EPA, DAPC  
122 South Front Street  
Columbus, Ohio 43215

and Ohio EPA DAPC, Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171.

Sincerely,

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

Cc: U.S. EPA Region 5 Via E-Mail Notification  
Ohio EPA-NEDO; Pennsylvania; West Virginia





## Permit Strategy Write-Up

**1. Check all that apply:**

X Synthetic Minor Determination

Netting Determination

**2. Source Description:**

AS America requests a modification to R008 and R022: FRP Lamination Line 1 &2 contained within a permanent total enclosure, vented to the Polyad control system. This operation includes a FRP resin coating booth, transition area, and a curing oven (900 ft3/hr).

R008 and R022 are currently permitted under synthetic minor P0107402, administrative modification issued 1/13/2011. This Chapter 31 modification was submitted due to an increase in production, R022 resumed operation. The increase in production has made the facility get close to its OC limit of 1395 lbs per month, more increases in production are further anticipated. Therefore the OC limit is to be increased to 10,600 lbs OC/month.

**3. Facility Emissions and Attainment Status:**

New total facility emissions will be limited to 95.00 tons VOC, 9.5 tons of any single HAP, and 24.50 tons total aggregate HAPs per rolling 12-month period. AS America is located in Columbiana County OH, which is designated attainment for all criteria pollutants.

**4. Source Emissions**

R008 & R022 combined emissions are modified to be 10,600 lbs OC/month.

**5. Conclusion:**

Compliance with the terms and conditions in permit #P0111893 will allow for compliance with the above stated emissions limitations.

**6. Please provide additional notes or comments as necessary:**

None

**7. Total Permit Allowable Emissions Summary (for informational purposes only):**

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	95.00
Any Single HAP	9.50
Total HAPs	24.50



PUBLIC NOTICE

1/4/2013 Issuance of Draft Air Pollution Permit-To-Install and Operate

AS AMERICA, INC.-SALEM, OH PLANT

605 S. Ellsworth Avenue,

Salem, OH 44460

Columbiana County

FACILITY DESC.: Plastics Plumbing Fixture Manufacturing, Enameled Iron and Metal Sanitary Ware Manufacturing

PERMIT #: P0111893

PERMIT TYPE: OAC Chapter 3745-31 Modification

PERMIT DESC: Chapter 31 modification to address increased production due to resumed operation of a second Fixed Reinforced Plastics (FRP) Lamination Line (R022) and increase in OC emissions from cleanup at P010, R008, and R022.

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the permit # or: Kevin Fortune, Ohio EPA DAPC, Northeast District Office, 2110 East Aurora Road, Twinsburg, OH 44087. Ph: (330)425-9171





**DRAFT**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
AS AMERICA, INC.-SALEM, OH PLANT**

Facility ID:	0215090011
Permit Number:	P0111893
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	1/4/2013
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance





**Division of Air Pollution Control  
Permit-to-Install and Operate**  
for  
AS AMERICA, INC.-SALEM, OH PLANT

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**Draft Permit-to-Install and Operate**  
AS AMERICA, INC.-SALEM, OH PLANT  
**Permit Number:** P0111893  
**Facility ID:** 0215090011

**Effective Date:** To be entered upon final issuance

## Authorization

Facility ID: 0215090011  
Application Number(s): M0001978  
Permit Number: P0111893  
Permit Description: Chapter 31 modification to address increased production due to resumed operation of a second Fixed Reinforced Plastics (FRP) Lamination Line (R022) and increase in OC emissions from cleanup at P010, R008, and R022.  
Permit Type: OAC Chapter 3745-31 Modification  
Permit Fee: \$400.00 *DO NOT send payment at this time, subject to change before final issuance*  
Issue Date: 1/4/2013  
Effective Date: To be entered upon final issuance  
Expiration Date: To be entered upon final issuance  
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

AS AMERICA, INC.-SALEM, OH PLANT  
605 S. Ellsworth Avenue  
Salem, OH 44460

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

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087  
(330)425-9171

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (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 described emissions unit(s) will operate in compliance with applicable State and Federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally  
Director



**Draft Permit-to-Install and Operate**  
AS AMERICA, INC.-SALEM, OH PLANT  
**Permit Number:** P0111893  
**Facility ID:** 0215090011

**Effective Date:** To be entered upon final issuance

## Authorization (continued)

**Permit Number:** P0111893  
**Permit Description:** Chapter 31 modification to address increased production due to resumed operation of a second Fixed Reinforced Plastics (FRP) Lamination Line (R022) and increase in OC emissions from cleanup at P010, R008, and R022.

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>R008</b>
Company Equipment ID:	FRP Lamination Line #1
Superseded Permit Number:	P0107402
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>R022</b>
Company Equipment ID:	FRP Lamination Line #2
Superseded Permit Number:	P0107402
General Permit Category and Type:	Not Applicable



**Draft Permit-to-Install and Operate**  
AS AMERICA, INC.-SALEM, OH PLANT

**Permit Number:** P0111893

**Facility ID:** 0215090011

**Effective Date:** To be entered upon final issuance

## **A. Standard Terms and Conditions**



**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is



very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Northeast District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means 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.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting<sup>1</sup> a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

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<sup>1</sup> Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile 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).



**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



**Draft Permit-to-Install and Operate**  
AS AMERICA, INC.-SALEM, OH PLANT

**Permit Number:** P0111893

**Facility ID:** 0215090011

**Effective Date:** To be entered upon final issuance

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



1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) B.2, B.3 and B.4
2. The total emissions from all of the air contaminant sources at this facility (except those units that are defined as trivial by Ohio EPA DAPC Engineering Guide 62) shall not exceed the following emissions limitations for any rolling, 12-month period:
  - a) 95.0 tons of volatile organic compounds (VOC);
  - b) 9.50 tons of any single hazardous air pollutant (HAP); and
  - c) 24.50 tons of aggregate HAP.
3. At the end of each month, the permittee shall collect, calculate, and record the following information:
  - a) The actual rolling, 12-month summation of the VOC, Styrene, Toluene, (any single HAP), and aggregate HAP emissions, calculated by adding the current month's emissions from all the air contaminant sources at this facility (except those units that are defined as trivial by Ohio EPA DAPC Engineering Guide 62) to the emissions for the preceding eleven calendar months.

The VOC emissions would be from all of the VOC containing (non-frit, i.e., non-borosilicate or non-porcelain enamel) coatings, resins, adhesives, mold cleaners, mold release agents, sealers, primers, solvents, and cleanup materials applied in all air contaminant sources at the facility.

1.12 tons of VOC emissions shall be added to the actual rolling, 12-month VOC emissions records, to represent the potential annual VOC emissions from the combustion of natural gas in the drying ovens, curing furnaces, and the thermal oxidizer, permitted in the following air contaminant sources: K001, R005, R008, R009, R018, R019, R020 and R022.
4. The permittee shall submit quarterly deviation (excursion) reports that identify any rolling, 12-month period during which the sum of the emissions from all of the air contaminant sources at this facility (except those units that are defined as trivial by Ohio EPA DAPC Engineering Guide 62) exceed any of the limitations in B.2.

These reports shall also include the probable cause of each deviation and the corrective action(s) taken to remedy the deviation(s).



**Draft Permit-to-Install and Operate**

AS AMERICA, INC.-SALEM, OH PLANT

**Permit Number:** P0111893

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If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during the quarter.

These reports shall be submitted (i.e., electronically via Air Service) quarterly to the Ohio EPA Northeast District Office by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters.



**Draft Permit-to-Install and Operate**  
AS AMERICA, INC.-SALEM, OH PLANT

**Permit Number:** P0111893

**Facility ID:** 0215090011

**Effective Date:** To be entered upon final issuance

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



**1. R008, FRP Lamination Line #1**

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

Acrylic Parts Fiberglass (FRP) Lamination Line 1, contained within a permanent total enclosure, vented to the Polyad control system (PolyadPreconcentrator and thermal oxidizer). This operation includes a FRP resin coating booth, transition area, and a curing oven (900 ft<sup>3</sup>/hr).

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. d)(7)

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)b, c)(1), c)(2), c(3), d)(1), d)(2), d)(3), d)(4), d)(6), e)(1), f)(1)a and f)(1)b

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)	<p>Emissions from the combustion of natural gas in the curing ovens and thermal oxidizer for emissions units R008 and R022, combined, shall not exceed the emission limitations specified below.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 0.016 pound per hour and 0.07 ton per year.</p> <p>Nitrogen oxide (NO<sub>x</sub>) emissions shall not exceed 0.29 pound per hour and 1.26 tons per year.</p> <p>Carbon monoxide (CO) emissions shall not exceed 0.24 pound per hour and 1.05 tons per year.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Organic compound (OC) emissions from the cleanup of R008, R022 and P010, combined, shall not exceed 10,600 pounds per month.
b.	OAC rule 3745-31-05(D)(1)(b)	<p>The total emissions for emissions units R008 and R022, combined, shall not exceed the emission limitations specified below.</p> <p>VOC emissions shall not exceed 52.1 pounds per day and 9.5 tons per rolling, 12-month period.</p> <p>Styrene emissions shall not exceed 52.1 pounds per day and 9.5 tons per rolling, 12-month period.</p> <p>All styrene emissions shall be captured and vented to the Polyad control system which shall achieve a minimum control efficiency of 93%, by weight.</p> <p>See B.2, B.3, B.4 and b)(2)a.</p>

(2) Additional Terms and Conditions

a. The VOC and styrene emission limitations are based on a maximum usage of 12,980 pounds per day of a styrene resin having a styrene content of 47%.

c) Operational Restrictions

(1) The PolyadPreconcentrator and thermal oxidizer control systems shall be used whenever this air contaminant source is in operation.

(2) The average combustion temperature within the thermal incinerator, for any 3-hour block of time the air contaminant source is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test which demonstrated compliance with all applicable limitations.

Stack testing performed on November 3, 2005 demonstrated the Polyad control system achieved a control efficiency of 93%, by weight. The average combustion temperature within the thermal incinerator during the November 3, 2005 testing was 1,350 degrees Fahrenheit.

(3) This emissions unit shall be totally enclosed such that all emissions are captured for venting to the Polyad control system. Compliance with the following criteria, as specified by USEPA Method 204, shall be met by the permittee:



- a. any natural draft opening (NDO) shall be at least four equivalent opening diameters from each VOC emitting point;
  - b. the total area of all NDO's shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity of air through all the NDO's shall be at least 3,600 m/hr (200 fpm); or the differential pressure between the inside and outside of the enclosure shall not be less than 0.007 inch of water;
  - d. the direction of air flow through all NDO's shall be into the enclosure; and
  - e. all access doors and windows whose areas are not included in "b" and are not included in the calculations or monitoring in "c" shall be closed during routine operation of the process.
- (4) The permittee shall burn only natural gas in the curing oven and thermal oxidizer serving this air contaminant source. The emissions from natural gas combustion are permitted at the potential usage of natural gas for air contaminant sources R008 and R022, combined.
- (5) The use of any cleanup material containing hazardous air pollutants (HAP) in this emissions unit, as defined in 112(G) of the Clean Air Act, is prohibited.
- (6) The use of cleanup material in this emission unit is limited to exempt solvents as defined in OAC rule 3745-21-01(B)(8).
- d) **Monitoring and/or Recordkeeping Requirements**
- (1) The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the air contaminant source is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.
  - (2) The permittee shall collect and record the following information for each day:
    - a. all 3-hour blocks of time (i.e., 12 a.m. to 3 a.m, 3 a.m. to 6 a.m., etc.) during which the average combustion temperature within the thermal oxidizer, when the air contaminant source was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission tests that demonstrated the emissions unit was in compliance; and
    - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated air contaminant source(s) was(were) in operation.



- (3) The permittee shall install, operate, and maintain monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.
- (4) The permittee shall record and maintain the following information on a daily basis when the emissions unit is in operation:
  - a. the difference in pressure between the permanent total enclosure and the surrounding area(s); and
  - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment.
- (5) The permittee shall collect and record the following information on a daily basis for each material employed in air contaminant sources R008 and R022, combined:
  - a. the company identification for each process resin and catalyst employed;
  - b. the number of gallons and density, or pounds, of each process resin employed;
  - c. the number of gallons and density, or pounds, of each catalyst employed;
  - d. the VOC content of each process resin employed, in pounds per gallon or in weight percent;
  - e. the VOC content of each catalyst employed, in pounds per gallon or in weight percent;
  - f. the styrene content of each process resin employed, in pounds per gallon or in weight percent;
  - g. the daily uncontrolled styrene emissions, in pounds per day, i.e., the sum of "b" (in pounds or converted to tons) of all process resins applied, times the emission factor (EF)\*, in pounds of styrene emitted per pound or ton of process resins. The EF is taken from Table 1 of Subpart WWWW of 40 CFR Part 63 for a nonatomized mechanical resin application using a nonvapor-suppressed resin, i.e.,  $EF = [(0.157 \times \% \text{ styrene}) - 0.0165] \times 2000$ ;

\*An alternative uncontrolled styrene emission factor may be used if it is determined more appropriate and approved by the Ohio EPA.

  - h. the daily controlled styrene emissions, in pounds per day, calculated by multiplying the uncontrolled styrene emissions, in pounds per day, by  $(1 - 0.93)$ , 0.93 represents the 93% control provided by the Polyad control system;
  - i. the daily uncontrolled VOC emissions from all catalysts, in pounds per day, calculated by the sum of "c" x "e" for each catalyst employed;



- j. the daily controlled VOC emissions from all catalysts, in pounds per day, calculated by multiplying the uncontrolled VOC emissions, in pounds per day, by  $(1 - 0.93)$ . 0.93 represents the 93% control provided by the Polyad control system; and
  - k. the total daily VOC emissions, in lbs VOC/day, i.e., sum of "h" + "j".
- (6) The permittee shall collect and record the following information, including the calculation, on a monthly basis:
- a. total VOC emissions, in lbs/month, calculated as the sum of the daily VOC emissions, as recorded in d)(5)k;
  - b. total styrene emissions, in lbs/month, calculated as the sum of the daily styrene emissions, as recorded in d)(5)h;
  - c. the company identification for each cleanup material employed;
  - d. the number of gallons or pounds of cleanup material employed at P010, R008 and R022, combined;
  - e. the OC content of the cleanup material employed at P010, R008 and R022, combined, in pounds per gallon, grams per liter or in weight percent;
  - f. the monthly OC emissions from all cleanup materials employed at P010, R008 and R022, combined, prior to any credit for recovered cleanup materials, in (or converted to) pounds per month, i.e., the sum of "d" x "e" for each cleanup material applied;
- If an emissions credit for recovered cleanup materials is desired, the OC emissions from recovered cleanup materials during the month may be subtracted from the monthly OC emissions calculated above. The OC emissions from the recovered cleanup materials is calculated by the following calculation: (amount of cleanup material recovered, in gallons or pounds/month) multiplied by (the OC content of the recovered cleanup material, as determined from the most recent lab test results from a representative sample of the recovered material).
- g. VOC emissions on a rolling, 12-month period, in tons/12-months, calculated by adding the current month's VOC emissions rate to the monthly sums of the preceding eleven calendar months; and
  - h. styrene emissions on a rolling, 12-month period, in tons/12-months, calculated by adding the current month's VOC emissions rate to the monthly sums of the preceding eleven calendar months.
- (7) Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute," ORC 3704.03(F)(4)(b), was not necessary because the air contaminant sources (R008 & R022) were evaluated during the review of PTI#02-188111, where a larger styrene emissions rate was provided. The emissions rate of 3.99 lbs styrene per hour did not exceed the Maximum Acceptable Ground Level Concentration (MAGLC) for styrene.



The emissions rate in this permit (52.1 lbs styrene per day or 2.17 lbs styrene per hour) is lower than the rate of 3.99 lbs styrene per hour.

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

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. an identification of all 3-hour blocks of time (i.e., 12 a.m. to 3 a.m., 3 a.m. to 6 a.m., etc.) during which the average combustion temperature within the thermal incinerator did not comply with the temperature limitation specified above;
  - b. an identification of all periods of time during which the permanent total enclosure was either not maintained at the required differential pressure or average facial velocity through each NDO;
  - c. an identification of each month during which the VOC emissions from R008 and R022, combined, exceeded 52.1 lbs/day, and the actual daily VOC emissions for each such day;
  - d. an identification of each month during which the styrene emissions from R008 and R022, combined, exceeded 52.1 lbs/day, and the actual daily styrene emissions for each such day;
  - e. an identification of each month during which the VOC emissions from R008 and R022, combined, exceeded 9.5 tons per rolling, 12-months, and the actual rolling, 12-month VOC emissions during each such month; and
  - f. an identification of each month during which the styrene emissions from R008 and R022, combined, exceeded 9.5 tons per rolling, 12-months and the actual rolling, 12-month styrene emissions during each such month.

These quarterly reports shall also include the probable cause of each deviation and the corrective action(s) taken to remedy the deviation(s).

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during the quarter.

These reports shall be submitted (i.e., electronically via Air Services) quarterly to the Ohio EPA by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters.

Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The PER shall cover a



reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

The total VOC emissions for emissions units R008 and R022, combined, shall not exceed 52.1 pounds per day and 9.5 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(5)k and d)(6)g.

b. Emission Limitations:

The total styrene emissions for emissions units R008 and R022, combined, shall not exceed 52.1 pounds per day and 9.5 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(5)h and d)(6)h.

c. Emission Limitation:

OC emissions from the cleanup of emissions units R008, R022 and P010, combined, shall not exceed 10,600 pounds per month.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(6)f.

d. Emission Limitation:

All styrene emissions shall be captured by a total enclosure providing 100% capture and vented to the Polyad control system which shall achieve a minimum control efficiency of 93%, by weight.

Applicable Compliance Method:

100% capture and the control efficiency requirement of 93%, by weight, were demonstrated during testing performed on November 3, 2005. Re-testing may be required at a future date upon permit renewal.



e. Emission Limitations:

Emissions from the combustion of natural gas in the curing ovens and thermal oxidizer for emissions units R008 and R022, combined, shall not exceed the emission limitations specified below.

VOC emissions shall not exceed 0.016 pound per hour.

NO<sub>x</sub> emissions shall not exceed 0.29 pound per hour.

CO emissions shall not exceed 0.24 pound per hour.

Applicable Compliance Method:

Compliance with the hourly emission limitations from natural gas combustion may be demonstrated by multiplying the appropriate AP-42 emission factor from "Compilation of Air Pollutant Emission Factors," Tables 1.4-1 and 1.4-2 (7/98) for natural gas by the maximum hourly natural gas usage rate of the oven (2,900 ft<sup>3</sup>/hr, combined). The emission factors are 100 lbsNO<sub>x</sub>/mmft<sup>3</sup>, 84 lbs CO/mmft<sup>3</sup> and 5.5 lbs VOC/mmft<sup>3</sup>. If required, the permittee shall demonstrate compliance with the hourly emission limitations in accordance with the appropriate U.S. EPA test methods specified in 40 CFR Part 60, Appendix A.

f. Emission Limitations:

Emissions from the combustion of natural gas in the curing ovens and thermal oxidizer for emissions units R008 and R022, combined, shall not exceed the emission limitations specified below.

VOC emissions shall not exceed 0.07 ton per year.

NO<sub>x</sub> emissions shall not exceed 1.26 tons per year.

CO emissions shall not exceed 1.05 tons per year.

Applicable Compliance Method:

The tpy emission limitations were developed by multiplying the short-term allowable emission limitations by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

g) Miscellaneous Requirements

- (1) The requirements of this Federally Enforceable Permit-to-Install and Operate (FEPTIO) shall supersede the requirements contained in all previous air permits issued for this air contaminant source.



**2. R022, FRP Lamination Line #2**

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

Acrylic Parts Fiberglass (FRP) Lamination Line 2, contained within a permanent total enclosure, vented to the Polyad control system (PolyadPreconcentrator and thermal oxidizer). This operation includes a FRP resin coating booth, transition area, and a curing oven (900 ft<sup>3</sup>/hr).

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. d)(7)

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)b, c)(1), c)(2), c(3), d)(1), d)(2), d)(3), d)(4), d)(6), e)(1), f)(1)a and f)(1)b

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)	<p>Emissions from the combustion of natural gas in the curing ovens and thermal oxidizer for emissions units R008 and R022, combined, shall not exceed the emission limitations specified below.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 0.016 pound per hour and 0.07 ton per year.</p> <p>Nitrogen oxide (NO<sub>x</sub>) emissions shall not exceed 0.29 pound per hour and 1.26 tons per year.</p> <p>Carbon monoxide (CO) emissions shall not exceed 0.24 pound per hour and 1.05 tons per year.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Organic compound (OC) emissions from the cleanup of R008, R022 and P010, combined, shall not exceed 10,600 pounds per month.
b.	OAC rule 3745-31-05(D)(1)(b)	<p>The total emissions for emissions units R008 and R022, combined, shall not exceed the emission limitations specified below.</p> <p>VOC emissions shall not exceed 52.1 pounds per day and 9.5 tons per rolling, 12-month period.</p> <p>Styrene emissions shall not exceed 52.1 pounds per day and 9.5 tons per rolling, 12-month period.</p> <p>All styrene emissions shall be captured and vented to the Polyad control system which shall achieve a minimum control efficiency of 93%, by weight.</p> <p>See B.2, B.3, B.4 and b)(2)a.</p>

(2) Additional Terms and Conditions

a. The VOC and styrene emission limitations are based on a maximum usage of 12,980 pounds per day of a styrene resin having a styrene content of 47%.

c) Operational Restrictions

(1) The PolyadPreconcentrator and thermal oxidizer control systems shall be used whenever this air contaminant source is in operation.

(2) The average combustion temperature within the thermal incinerator, for any 3-hour block of time the air contaminant source is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test which demonstrated compliance with all applicable limitations.

Stack testing performed on November 3, 2005 demonstrated the Polyad control system achieved a control efficiency of 93%, by weight. The average combustion temperature within the thermal incinerator during the November 3, 2005 testing was 1,350 degrees Fahrenheit.

(3) This emissions unit shall be totally enclosed such that all emissions are captured for venting to the Polyad control system. Compliance with the following criteria, as specified by USEPA Method 204, shall be met by the permittee:



- a. any natural draft opening (NDO) shall be at least four equivalent opening diameters from each VOC emitting point;
  - b. the total area of all NDO's shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity of air through all the NDO's shall be at least 3,600 m/hr (200 fpm); or the differential pressure between the inside and outside of the enclosure shall not be less than 0.007 inch of water;
  - d. the direction of air flow through all NDO's shall be into the enclosure; and
  - e. all access doors and windows whose areas are not included in "b" and are not included in the calculations or monitoring in "c" shall be closed during routine operation of the process.
- (4) The permittee shall burn only natural gas in the curing oven and thermal oxidizer serving this air contaminant source. The emissions from natural gas combustion are permitted at the potential usage of natural gas for air contaminant sources R008 and R022, combined.
- (5) The use of any cleanup material containing hazardous air pollutants (HAP) in this emissions unit, as defined in 112(G) of the Clean Air Act, is prohibited.
- (6) The use of cleanup material in this emission unit is limited to exempt solvents as defined in OAC rule 3745-21-01(B)(8).
- d) **Monitoring and/or Recordkeeping Requirements**
- (1) The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the air contaminant source is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.
  - (2) The permittee shall collect and record the following information for each day:
    - a. all 3-hour blocks of time (i.e., 12 a.m. to 3 a.m, 3 a.m. to 6 a.m., etc.) during which the average combustion temperature within the thermal oxidizer, when the air contaminant source was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission tests that demonstrated the emissions unit was in compliance; and
    - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated air contaminant source(s) was(were) in operation.



- (3) The permittee shall install, operate, and maintain monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.
- (4) The permittee shall record and maintain the following information on a daily basis when the emissions unit is in operation:
  - a. the difference in pressure between the permanent total enclosure and the surrounding area(s); and
  - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment.
- (5) The permittee shall collect and record the following information on a daily basis for each material employed in air contaminant sources R008 and R022, combined:
  - a. the company identification for each process resin and catalyst employed;
  - b. the number of gallons and density, or pounds, of each process resin employed;
  - c. the number of gallons and density, or pounds, of each catalyst employed;
  - d. the VOC content of each process resin employed, in pounds per gallon or in weight percent;
  - e. the VOC content of each catalyst employed, in pounds per gallon or in weight percent;
  - f. the styrene content of each process resin employed, in pounds per gallon or in weight percent;
  - g. the daily uncontrolled styrene emissions, in pounds per day, i.e., the sum of "b" (in pounds or converted to tons) of all process resins applied, times the emission factor (EF)\*, in pounds of styrene emitted per pound or ton of process resins. The EF is taken from Table 1 of Subpart WWWW of 40 CFR Part 63 for a nonatomized mechanical resin application using a nonvapor-suppressed resin, i.e.,  $EF = [(0.157 \times \% \text{ styrene}) - 0.0165] \times 2000$ ;

\*An alternative uncontrolled styrene emission factor may be used if it is determined more appropriate and approved by the Ohio EPA.

  - h. the daily controlled styrene emissions, in pounds per day, calculated by multiplying the uncontrolled styrene emissions, in pounds per day, by  $(1 - 0.93)$ . 0.93 represents the 93% control provided by the Polyad control system;
  - i. the daily uncontrolled VOC emissions from all catalysts, in pounds per day, calculated by the sum of "c" x "e" for each catalyst employed;



- j. the daily controlled VOC emissions from all catalysts, in pounds per day, calculated by multiplying the uncontrolled VOC emissions, in pounds per day, by  $(1 - 0.93)$ . 0.93 represents the 93% control provided by the Polyad control system; and
  - k. the total daily VOC emissions, in lbs VOC/day, i.e., sum of "h" + "j".
- (6) The permittee shall collect and record the following information, including the calculation, on a monthly basis:
- a. total VOC emissions, in lbs/month, calculated as the sum of the daily VOC emissions, as recorded in d)(5)k;
  - b. total styrene emissions, in lbs/month, calculated as the sum of the daily styrene emissions, as recorded in d)(5)h;
  - c. the company identification for each cleanup material employed;
  - d. the number of gallons or pounds of cleanup material employed at P010, R008 and R022, combined;
  - e. the OC content of the cleanup material employed at P010, R008 and R022, combined, in pounds per gallon, grams per liter or in weight percent;
  - f. the monthly OC emissions from all cleanup materials employed at P010, R008 and R022, combined, prior to any credit for recovered cleanup materials, in (or converted to) pounds per month, i.e., the sum of "d" x "e" for each cleanup material applied;
- If an emissions credit for recovered cleanup materials is desired, the OC emissions from recovered cleanup materials during the month may be subtracted from the monthly OC emissions calculated above. The OC emissions from the recovered cleanup materials is calculated by the following calculation: (amount of cleanup material recovered, in gallons or pounds/month) multiplied by (the OC content of the recovered cleanup material, as determined from the most recent lab test results from a representative sample of the recovered material).
- g. VOC emissions on a rolling, 12-month period, in tons/12-months, calculated by adding the current month's VOC emissions rate to the monthly sums of the preceding eleven calendar months; and
  - h. styrene emissions on a rolling, 12-month period, in tons/12-months, calculated by adding the current month's VOC emissions rate to the monthly sums of the preceding eleven calendar months.
- (7) Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute," ORC 3704.03(F)(4)(b), was not necessary because the air contaminant sources (R008 & R022) were evaluated during the review of PTI#02-188111, where a larger styrene emissions rate was provided. The emissions rate of 3.99 lbs styrene per hour did not exceed the Maximum Acceptable Ground Level Concentration (MAGLC) for styrene.



The emissions rate in this permit (52.1 lbs styrene per day or 2.17 lbs styrene per hour) is lower than the rate of 3.99 lbs styrene per hour.

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

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. an identification of all 3-hour blocks of time (i.e., 12 a.m. to 3 a.m., 3 a.m. to 6 a.m., etc.) during which the average combustion temperature within the thermal incinerator did not comply with the temperature limitation specified above;
  - b. an identification of all periods of time during which the permanent total enclosure was either not maintained at the required differential pressure or average facial velocity through each NDO;
  - c. an identification of each month during which the VOC emissions from R008 and R022, combined, exceeded 52.1 lbs/day, and the actual daily VOC emissions for each such day;
  - d. an identification of each month during which the styrene emissions from R008 and R022, combined, exceeded 52.1 lbs/day, and the actual daily styrene emissions for each such day;
  - e. an identification of each month during which the VOC emissions from R008 and R022, combined, exceeded 9.5 tons per rolling, 12-months and the actual rolling, 12-month VOC emissions during each such month; and
  - f. an identification of each month during which the styrene emissions from R008 and R022, combined, exceeded 9.5 tons per rolling, 12-months and the actual rolling, 12-month styrene emissions during each such month.

These quarterly reports shall also include the probable cause of each deviation and the corrective action(s) taken to remedy the deviation(s).

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during the quarter.

These reports shall be submitted (i.e., electronically via Air Services) quarterly to the Ohio EPA by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters.

Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director by the due date identified in the Authorization section of this permit. The PER shall cover a



reporting period of no more than 12 months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

The total VOC emissions for emissions units R008 and R022, combined, shall not exceed 52.1 pounds per day and 9.5 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(5)k and d)(6)g.

b. Emission Limitations:

The total styrene emissions for emissions units R008 and R022, combined, shall not exceed 52.1 pounds per day and 9.5 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(5)h and d)(6)h.

c. Emission Limitation:

OC emissions from the cleanup of emissions units R008, R022 and P010, combined, shall not exceed 10,600 pounds per month.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(6)f.

d. Emission Limitation:

All styrene emissions shall be captured by a total enclosure providing 100% capture and vented to the Polyad control system which shall achieve a minimum control efficiency of 93%, by weight.

Applicable Compliance Method:

100% capture and the control efficiency requirement of 93%, by weight, were demonstrated during testing performed on November 3, 2005. Re-testing may be required at a future date upon permit renewal.



e. Emission Limitations:

Emissions from the combustion of natural gas in the curing ovens and thermal oxidizer for emissions units R008 and R022, combined, shall not exceed the emission limitations specified below.

VOC emissions shall not exceed 0.016 pound per hour.

NO<sub>x</sub> emissions shall not exceed 0.29 pound per hour.

CO emissions shall not exceed 0.24 pound per hour.

Applicable Compliance Method:

Compliance with the hourly emission limitations from natural gas combustion may be demonstrated by multiplying the appropriate AP-42 emission factor from "Compilation of Air Pollutant Emission Factors," Tables 1.4-1 and 1.4-2 (7/98) for natural gas by the maximum hourly natural gas usage rate of the oven (2,900 ft<sup>3</sup>/hr, combined). The emission factors are 100 lbsNO<sub>x</sub>/mmft<sup>3</sup>, 84 lbs CO/mmft<sup>3</sup> and 5.5 lbs VOC/mmft<sup>3</sup>. If required, the permittee shall demonstrate compliance with the hourly emission limitations in accordance with the appropriate U.S. EPA test methods specified in 40 CFR Part 60, Appendix A.

f. Emission Limitations:

Emissions from the combustion of natural gas in the curing ovens and thermal oxidizer for emissions units R008 and R022, combined, shall not exceed the emission limitations specified below.

VOC emissions shall not exceed 0.07 ton per year.

NO<sub>x</sub> emissions shall not exceed 1.26 tons per year.

CO emissions shall not exceed 1.05 tons per year.

Applicable Compliance Method:

The tpy emission limitations were developed by multiplying the short-term allowable emission limitations by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

g) Miscellaneous Requirements

- (1) The requirements of this Federally Enforceable Permit-to-Install and Operate (FEPTIO) shall supersede the requirements contained in all previous air permits issued for this air contaminant source.