



Environmental Protection Agency

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

1/13/2011

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

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

Facility ID: 0215090011
Permit Number: P0107402
Permit Type: Administrative Modification
County: Columbiana

Certified Mail

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

Dear Permit Holder:

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

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

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

If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPC Web page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: Ohio EPA-NEDO



FINAL

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

Facility ID: 0215090011
Permit Number: P0107402
Permit Type: Administrative Modification
Issued: 1/13/2011
Effective: 1/13/2011
Expiration: 5/15/2014



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

Table of Contents

Authorization 1
A. Standard Terms and Conditions 3
1. What does this permit-to-install and operate ("PTIO") allow me to do?..... 4
2. Who is responsible for complying with this permit? 4
3. What records must I keep under this permit? 4
4. What are my permit fees and when do I pay them?..... 4
5. When does my PTIO expire, and when do I need to submit my renewal application? 4
6. What happens to this permit if my project is delayed or I do not install or modify my source? 5
7. What reports must I submit under this permit? 5
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? 5
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ... 5
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? 5
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? 6
12. What happens if one or more emissions units operated under this permit is/are shut down permanently? 6
13. Can I transfer this permit to a new owner or operator?..... 6
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? 6
15. What happens if a portion of this permit is determined to be invalid? 7
B. Facility-Wide Terms and Conditions..... 8
C. Emissions Unit Terms and Conditions 11
1. R008, FRP Lamination Line #1 12
2. R022, FRP Lamination Line #2 21



Authorization

Facility ID: 0215090011
Application Number(s): M0001075
Permit Number: P0107402
Permit Description: Administrative modification to make corrections in the terms and conditions for R008 and R022.
Permit Type: Administrative Modification
Permit Fee: \$200.00
Issue Date: 1/13/2011
Effective Date: 1/13/2011
Expiration Date: 5/15/2014
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

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.

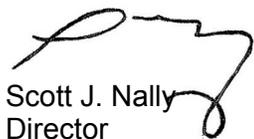
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

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



Authorization (continued)

Permit Number: P0107402
Permit Description: Administrative modification to make corrections in the terms and conditions for R008 and R022.

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

Emissions Unit ID:	R008
Company Equipment ID:	FRP Lamination Line #1
Superseded Permit Number:	P0106958
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	R022
Company Equipment ID:	FRP Lamination Line #2
Superseded Permit Number:	P0106958
General Permit Category and Type:	Not Applicable

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 submitting¹ 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.

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

¹ 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).

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.

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 (VOCs)
 - b) 9.50 tons of any single Hazardous Air Pollutant (HAP)
 - c) 24.50 tons of aggregate HAPs
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 HAPs 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).

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.

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 (Polyad Preconcentrator and thermal oxidizer). This operation includes a FRP resin coating booth, transition area, and a curing oven.

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

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Row 1: a. OAC rule 3745-31-05(A)(3) | 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 following: VOC emissions shall not exceed 0.016 pound per hour and 0.07 ton per year; nitrogen oxide (NOx) emissions shall not exceed 0.29 pound per hour and 1.26 tons per year; and carbon monoxide (CO) emissions shall not exceed 0.24 pound per hour and 1.05 tons per year. OC emissions from the cleanup of R008, R022 & P010 combined shall not exceed



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		1,395 lbs per month.
b.	OAC rule 3745-21-07(G)	The control requirement specified by this rule is less stringent than the control requirements established pursuant to OAC rule 3745-31-05(A)(3). See b)(2)a.
c.	OAC rule 3745-31-05(D)(1)(b)	The total emissions for emissions units R008 and R022, combined, shall not exceed the following limitations: volatile organic compound (VOC) emissions shall not exceed 52.1 pounds per day and 9.5 tons per rolling, 12-month period; styrene emissions shall not exceed 52.1 pounds per day and 9.5 tons per rolling, 12-month period; and all styrene emissions shall be captured and vented to the Polyad control system which shall achieve a minimum control efficiency of 93%, by weight. See B.2, B.3, B.4 and b)(2)b.

(2) Additional Terms and Conditions

- a. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)b.

The emission limitations and control requirements from the amended 21-07 rule, and the associated operational restrictions and the monitoring, record keeping, and reporting requirements contained in this permit, shall become federally enforceable on the date the U.S. EPA approves the revised OAC rule 3745-21-07 as a revision to the Ohio State Implementation Plan. The following terms shall become federally enforceable after U.S. EPA approves the rule revision:

None.

- b. The VOC and styrene emissions 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 Polyad Preconcentrator 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.

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, catalyst and cleanup material 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 number of gallons and density or pounds of each cleanup material employed at P010, R008 and R022 combined;
 - e. the VOC content of each process resin employed, in pounds per gallon or in weight percent;
 - f. the VOC content of each catalyst employed, in pounds per gallon or in weight percent;
 - g. the VOC and OC content of each cleanup material employed, in pounds per gallon or in weight percent;

- h. the styrene content of each process resin employed, in pounds per gallon or in weight percent;
 - i. 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.
- j. the daily control 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 system.
 - k. the daily uncontrolled VOC emissions from all catalysts, in pounds per day, calculated by the sum of "c" x "f" for each catalyst employed;
 - l. 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 system.
 - m. the daily VOC and 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 day, i.e., the sum of "d" x "g" for each cleanup material employed;
- If an emissions credit for recovered cleanup materials is desired, the VOC and OC emissions from recovered cleanup materials during the day may be subtracted from the daily VOC and OC emissions calculated above. The VOC and OC emissions from the recovered cleanup materials is calculated by the following calculation: (amount of cleanup material recovered, in gallons or pounds/day) multiplied by (the OC and VOC content of the recovered cleanup material, as determined from the most recent lab test results from a representative sample of the recovered material).
- n. the total daily VOC emissions, in lbs VOC/day, i.e., sum of "j" + "l" + "m"(if the cleanup material contains VOC).
- (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)n;
 - b. total styrene emissions, in lbs/month, calculated as the sum of the daily styrene emissions, as recorded in d)(5)j;

- c. OC emissions, in lbs/month, from the cleanup materials calculated as the sum of the daily OC emissions from cleanup material usage, as recorded in d)(5)m.
 - d. 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
 - e. 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 & 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 & 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 & 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 & 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 emission limitations in b)(1) and b)2) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

52.1 lbs VOC per day, and 9.5 tons VOC per rolling, 12-months for emissions units R008 and R022 combined

Applicable Compliance Method:

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

b. Emission Limitations:

52.1 lbs styrene/day and 9.5 tons styrene per rolling, 12-months months for emissions units R008 and R022 combined

Applicable Compliance Method:

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

c. Emission Limitations:

Organic compound (OC) emissions from the cleanup of P010, R008 & R022 combined shall not exceed 1,395 lbs per month.

Applicable Compliance Method:

Compliance may be demonstrated through the record keeping requirements specified in d)(1)(j) under P010, and d)(5)m under R008 & R022.

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 from emissions units R008 and R022, combined, from natural gas combustion:

0.016 pound per hour of VOC emissions;

0.29 pound per hour of NO_x emissions; and

0.24 pound per hour of CO emissions.

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 ft³/hr, combined). The emissions factors are 100 lbs NO_x/mmft³, 84 lbs CO/mmft³, and 5.5 lbs VOC/mmft³. 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 from emissions units R008 and R022, combined, from natural gas combustion:

0.07 ton per year of VOC emissions;

1.26 tons per year of NO_x emissions; and

1.05 tons per year of CO emissions

Applicable Compliance Method:

The annual emission limitations are based on the allowable hourly emission rates multiplied by the maximum possible operating hours (8,760 hrs/yr), and divided by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly emission limitations, compliance will also be shown for the annual emission limitations.

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 1, contained within a permanent total enclosure, vented to the Polyad control system (Polyad Preconcentrator and thermal oxidizer). This operation includes a FRP resin coating booth, transition area, and a curing oven.

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

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Row 1: a. OAC rule 3745-31-05(A)(3) | 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 following: VOC emissions shall not exceed 0.016 pound per hour and 0.07 ton per year; nitrogen oxide (NOx) emissions shall not exceed 0.29 pound per hour and 1.26 tons per year; and carbon monoxide (CO) emissions shall not exceed 0.24 pound per hour and 1.05 tons per year. OC emissions from the cleanup of R008, R022 & P010 combined shall not exceed



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		1,395 lbs per month.
b.	OAC rule 3745-21-07(G)	The control requirement specified by this rule is less stringent than the control requirements established pursuant to OAC rule 3745-31-05(A)(3). See b)(2)a.
c.	OAC rule 3745-31-05(D)(1)(b)	The total emissions for emissions units R008 and R022, combined, shall not exceed the following limitations: volatile organic compound (VOC) emissions shall not exceed 52.1 pounds per day and 9.5 tons per rolling, 12-month period; styrene emissions shall not exceed 52.1 pounds per day and 9.5 tons per rolling, 12-month period; and all styrene emissions shall be captured and vented to the Polyad control system which shall achieve a minimum control efficiency of 93%, by weight. See B.2, B.3, B.4 and b)(2)b.

(2) Additional Terms and Conditions

- a. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)b.

The emission limitations and control requirements from the amended 21-07 rule, and the associated operational restrictions and the monitoring, record keeping, and reporting requirements contained in this permit, shall become federally enforceable on the date the U.S. EPA approves the revised OAC rule 3745-21-07 as a revision to the Ohio State Implementation Plan. The following terms shall become federally enforceable after U.S. EPA approves the rule revision:

None.

- b. The VOC and styrene emissions 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 Polyad Preconcentrator 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.

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, catalyst and cleanup material 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 number of gallons and density or pounds of each cleanup material employed at P010, R008 and R022 combined;
 - e. the VOC content of each process resin employed, in pounds per gallon or in weight percent;
 - f. the VOC content of each catalyst employed, in pounds per gallon or in weight percent;
 - g. the VOC and OC content of each cleanup material employed, in pounds per gallon or in weight percent;

- h. the styrene content of each process resin employed, in pounds per gallon or in weight percent;
 - i. 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.
- j. the daily control 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 system.
 - k. the daily uncontrolled VOC emissions from all catalysts, in pounds per day, calculated by the sum of "c" x "f" for each catalyst employed;
 - l. 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 system.
 - m. the daily VOC and 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 day, i.e., the sum of "d" x "g" for each cleanup material employed;
- If an emissions credit for recovered cleanup materials is desired, the VOC and OC emissions from recovered cleanup materials during the day may be subtracted from the daily VOC and OC emissions calculated above. The VOC and OC emissions from the recovered cleanup materials is calculated by the following calculation: (amount of cleanup material recovered, in gallons or pounds/day) multiplied by (the OC and VOC content of the recovered cleanup material, as determined from the most recent lab test results from a representative sample of the recovered material).
- n. the total daily VOC emissions, in lbs VOC/day, i.e., sum of "j" + "l" + "m"(if the cleanup material contains VOC).
- (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)n;
 - b. total styrene emissions, in lbs/month, calculated as the sum of the daily styrene emissions, as recorded in d)(5)j;

- c. OC emissions, in lbs/month, from the cleanup materials calculated as the sum of the daily OC emissions from cleanup material usage, as recorded in d)(5)m.
 - d. 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
 - e. 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 & 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 & 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 & 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 & 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 emission limitations in b)(1) and b)2) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

52.1 lbs VOC per day, and 9.5 tons VOC per rolling, 12-months for emissions units R008 and R022 combined

Applicable Compliance Method:

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

b. Emission Limitations:

52.1 lbs styrene/day and 9.5 tons styrene per rolling, 12-months months for emissions units R008 and R022 combined

Applicable Compliance Method:

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

c. Emission Limitations:

Organic compound (OC) emissions from the cleanup of P010, R008 & R022 combined shall not exceed 1,395 lbs per month.

Applicable Compliance Method:

Compliance may be demonstrated through the record keeping requirements specified in d)(1)(j) under P010, and d)(5)m under R008 & R022.

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 from emissions units R008 and R022, combined, from natural gas combustion:

0.016 pound per hour of VOC emissions;

0.29 pound per hour of NO_x emissions; and

0.24 pound per hour of CO emissions.

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 ft³/hr, combined). The emissions factors are 100 lbs NO_x/mmft³, 84 lbs CO/mmft³, and 5.5 lbs VOC/mmft³. 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 from emissions units R008 and R022, combined, from natural gas combustion:

0.07 ton per year of VOC emissions;

1.26 tons per year of NO_x emissions; and

1.05 tons per year of CO emissions

Applicable Compliance Method:

The annual emission limitations are based on the allowable hourly emission rates multiplied by the maximum possible operating hours (8,760 hrs/yr), and divided by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly emission limitations, compliance will also be shown for the annual emission limitations.

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.