



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
LORAIN COUNTY**

CERTIFIED MAIL

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 02-17574

DATE: 5/22/2003

Perry Fiberglass Products Inc
Thomas Pulliam
33660 Pin Oak Parkway
Avon Lake, OH 44012

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

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

cc: USEPA

NEDO



**Permit To Install
Terms and Conditions**

**Issue Date: 5/22/2003
Effective Date: 5/22/2003**

FINAL PERMIT TO INSTALL 02-17574

Application Number: 02-17574
APS Premise Number: 0247030996
Permit Fee: **\$600**
Name of Facility: Perry Fiberglass Products Inc
Person to Contact: Thomas Pulliam
Address: 33660 Pin Oak Parkway
Avon Lake, OH 44012

Location of proposed air contaminant source(s) [emissions unit(s)]:
**33660 Pin Oak Parkway
Avon Lake, Ohio**

Description of proposed emissions unit(s):
Filament winding machine and two lay up areas.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

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

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions

and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

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

10. Public Disclosure

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

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

Perry Fiberglass Products Inc
 PTI Application: 02-17574
 Issued: 5/22/2003

Facility ID: 0247030996

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
OC (Styrene)	9.7
OC (cleanup materials)	1.5

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P001 - Filament Winder 1, pulls glass fibers from a creel through a resin bath onto a spinning mandrel	OAC rule 3745-31-05(A)(3)	Organic compound (OC) emissions shall not exceed 7.3 tons per year. See section A.2.a.
		Cleanup materials: Organic compound emissions shall not exceed 1.1 tons per year. See section A.2.b.
		The requirements of this rule also include the requirements of OAC rule 3745-21-07(G)(2).
	OAC rule 3745-21-07(G)(2)	OC emissions shall not exceed 8.0 pounds per hour, 40.0 pounds per day. See section A.2.a.

2. Additional Terms and Conditions

- 2.a The emissions of organic material from the gelcoat and resin materials consist of Styrene, which is photochemically reactive material and a hazardous air pollutant (HAP).
- 2.b The permittee shall not employ any cleanup material in this emissions unit which is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

B. Operational Restrictions

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Perry

PTI A

Issued: 5/22/2003

Emissions Unit ID: **P001**

None

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information daily for the emissions unit (P001):
 - a. The name and identification number of each gelcoat and/or resin employed.
 - b. An identification of the type of application (i.e., mechanical non-atomized, gelcoat application, gelcoat controlled spray application, etc.) employed.
 - c. The number of tons of each gelcoat employed, in tons per day.
 - d. The number of tons of each resin employed, in tons per day.
 - e. The Styrene content of each gelcoat and/or resin employed, in percent by weight.
 - f. The name and identification number of each cleanup material employed.
 - g. The number of gallons of each cleanup material employed, in gallons per day.
 - h. The OC content of each cleanup material employed, in pounds of OC per gallon.
 - i. The total number of hours the emissions unit was in operation, in hours per day.
 - j. Emission factors for emission rates in pounds of Styrene emitted per ton of Resin or Gelcoat employed, in accordance with "CFA guidance, Table 3 - Unified Emission Factor (UEF) Table, UEFs for Open Molding of Composites, July 23, 2001."
 - k. The total Styrene emission rate for all gelcoats employed, calculated as the sum of (c) x (j) from section C.1 for each gelcoat, in pounds per day.
 - l. The total Styrene emission rate for all resins coats employed, calculated as the sum of (d) x (j) from section C.1 for each resin, in pounds per day.
 - m. The total Styrene emission rate for all gelcoats and resins employed, calculated as the sum of (k) and (l) from section C.1, in pounds per day.
 - n. The total Styrene emission rate for all gelcoats and resins employed, calculated as the quotient of (m)/(i) from section C.1, in pounds per hour (average).

- o. The total OC emission rate for all cleanup materials employed, calculated as the sum of (g) x (h) from section C.1 for each cleanup material, in pounds per day.

The gelcoat and resin information must be for the gelcoats and resins as employed, including any thinning solvents added at the emissions unit.

2. The permittee shall collect and record the following information monthly for the emissions unit (P001):
 - a. The total Styrene emission rate for all gelcoats and resins employed, calculated as the sum of pounds of daily styrene emissions from section C.1.m, in pounds per month.
 - b. The total OC emission rate for cleanup material employed, calculated as the sum of pounds of daily OC emissions from section C.1.o, in pounds per month.
 - c. The total Styrene emission rate for all gelcoats and resins employed, in tons per year, calculated as the sum of pounds of monthly OC emissions from section C.2.a for each calendar year.
 - d. The total OC emission rate for cleanup material employed, in tons per year, calculated as the sum of pounds of monthly OC emissions from section C.2.b for each calendar year.
3. The permit to install for emissions units P001, R001 and R002 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Styrene

TLV (mg/m³): 85.2

Maximum Hourly Emission Rate (lbs/hr): 10.32 Total Styrene emissions from P001, R001 and R002

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 1.861

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Issued

Facility ID: 0247030996

Emissions Unit ID: **P001**

MAGLC (mg/m3): 2.029

Pollutant: Acetone

TLV (mg/m3): 1187.1

Maximum Hourly Emission Rate (lbs/hr): 1.37
and R002

Total Acetone emissions from P001, R001
and R002

Predicted 1-Hour Maximum Ground-Level
Concentration (mg/m³): 0.247

MAGLC (mg/m³): 28.265

4. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still

satisfies the "Air Toxic Policy"; and

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each of the following:
 - a. Each day during which the total Styrene emissions exceeded 8.00 pounds per hour (average) and the actual Styrene emissions (average) for each such day.
 - b. Each day during which the total Styrene emissions exceeded 40.0 pounds per day and the actual Styrene emissions for each such day.
 - c. Each calendar year during which the total Styrene emissions exceeded 7.3 tons per year and the actual OC emissions for each such year.
 - d. Each day during which the permittee employs a cleanup material which is a photochemically reactive material and the actual OC emissions for each such day.
 - e. Each calendar year during which the total OC emissions from cleanup materials exceeded 1.1 tons per year and the actual OC emissions for each such year.

E. Testing Requirements

1. Emission Limitation:
8.0 pounds per day of Styrene emissions, average

Applicable Compliance Method:
Compliance shall be based upon the Monitoring and/or Record Keeping requirements specified in Section C.1.
2. Emission Limitation:
40.0 pounds per day of Styrene emissions

Applicable Compliance Method:
Compliance shall be based upon the Monitoring and/or Record Keeping requirements specified in Section C.1.

3. Emission Limitation:
7.3 tons per year of Styrene emissions

Applicable Compliance Method:

Compliance shall be based upon the Monitoring and/or Record Keeping requirements specified in Section C.2.

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4. Emission Limitation:
1.1 tons per year of OC emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be based upon the Monitoring and/or Record Keeping requirements specified in Section C.2.

5. Any determination of OC content (percent by weight), solids content, or density of a material shall be based on the material as employed, including the addition of any thinner or viscosity reducer to the material. The permittee shall determine the composition of the material by formulation data supplied by the manufacturer or from data determined by an analysis of each material, as received, by U.S. EPA Reference Method 24 as referenced in 40 CFR Part 60, Appendix A. If formulation data is employed, the Ohio EPA may require the permittee to have a Reference Method 24 analysis or an equivalent, alternative method (as approved by Ohio EPA) performed on the material(s).

F. Miscellaneous Requirements

1. Paragraphs A.1, A.2.a, A.2.c, B.1, C.1, C.2, D.1, E.1, E.2, E.3, E.4 and E.5 of these Special Terms and Conditions constitute the federally enforceable portions of this permit.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
R001 - Fitting Fabrication: Area No. 1	OAC rule 3745-31-05(A)(3)	Organic compound (OC) emissions shall not exceed 6.6 pounds per day and 1.2 tons per year. See section A.2.a. Cleanup materials: OC emissions shall not exceed 0.2 tons per year. See section A.2.b. The requirements of this rule also include the requirements of OAC rule 3745-31-05(D).
	OAC rule 3745-21-07(G)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-31-05(D)	See sections A.2.c and B.1.

2. Additional Terms and Conditions

- 2.a The emissions of organic material from the gelcoat and resin materials consist of Styrene, which is photochemically reactive material and a hazardous air pollutant (HAP).

Emissions Unit ID: R001

- 2.b The permittee shall not employ any cleanup material in this emissions unit which is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
- 2.c Styrene emissions from this emissions unit shall not exceed 1.2 tons per year, as a rolling 12-month summation.

B. Operational Restrictions

- 1. The emissions of Styrene from this emissions unit shall not exceed 1.2 tons per year, based upon a rolling, 12-month summation of the daily emissions.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Emissions of Styrene, (Tons)</u>
1	0.1
1-2	0.2
1-3	0.3
1-4	0.4
1-5	0.5
1-6	0.6
1-7	0.7
1-8	0.8
1-9	0.9
1-10	1.0
1-11	1.1
1-12	1.2

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual emission limitation for Styrene shall be based upon a rolling, 12-month summation of daily emissions.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall collect and record the following information daily for the emissions unit (R001):

- a. The name and identification number of each gelcoat and/or resin employed.
- b. An identification of the type of application (i.e., mechanical non-atomized, gelcoat application, gelcoat controlled spray application, etc.) employed.
- c. The number of tons of each gelcoat employed, in tons per day.

- d. The number of tons of each resin employed, in tons per day.
- e. The Styrene content of each gelcoat and/or resin employed, in percent by weight.
- f. The name and identification number of each cleanup material employed.
- g. The number of gallons of each cleanup material employed, in gallons per day.
- h. The OC content of each cleanup material employed, in pounds of OC per gallon.
- i. The total number of hours the emissions unit was in operation, in hours per day.
- j. Emission factors for emission rates in pounds of Styrene emitted per ton of Resin or Gelcoat employed, in accordance with "CFA guidance, Table 3 - Unified Emission Factor (UEF) Table, UEFs for Open Molding of Composites, July 23, 2001."
- k. The total Styrene emission rate for all gelcoats employed, calculated as the sum of (c) x (j) from section C.1 for each gelcoat, in pounds per day.
- l. The total Styrene emission rate for all resins coats employed, calculated as the sum of (d) x (j) from section C.1 for each resin, in pounds per day.
- m. The total Styrene emission rate for all gelcoats and resins employed, calculated as the sum of (k) and (l) from section C.1, in pounds per day.
- n. The total OC emission rate for all cleanup materials employed, calculated as the sum of (g) x (h) from section C.1 for each cleanup material, in pounds per day.

The gelcoat and resin information must be for the gelcoats and resins as employed, including any thinning solvents added at the emissions unit.

- 2. The permittee shall collect and record the following information monthly for the emissions unit (R001):
 - a. The total Styrene emission rate for all gelcoats and resins employed, calculated as the sum of pounds of daily styrene emissions from section C.1.m, in pounds per month.
 - b. The total OC emission rate for cleanup material employed, calculated as the sum of pounds of daily OC emissions from section C.1.n, in pounds per month.

- c. The total Styrene emission rate for all gelcoats and resins employed, in tons per year as a rolling 12-month summation, calculated as the sum of pounds of monthly styrene emissions from section C.2.a for 12 consecutive months, and divided by 2000. Each new month constitutes a new rolling 12-month summation.

- d. The total OC emission rate for cleanup material employed, in tons per year, calculated as the sum of pounds of monthly OC emissions from section C.2.b for each calendar year.
3. The permit to install for emissions units P001, R001 and R002 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Styrene

TLV (mg/m³): 85.2

Maximum Hourly Emission Rate (lbs/hr): 10.32 Total Styrene emissions from P001, R001
and R002

Predicted 1-Hour Maximum Ground-Level
Concentration (mg/m³): 1.861

MAGLC (mg/m³): 2.029

Pollutant: Acetone

TLV (mg/m³): 1187.1

Maximum Hourly Emission Rate (lbs/hr): 1.37 Total Acetone emissions from P001, R001
and R002

Predicted 1-Hour Maximum Ground-Level
Concentration (mg/m³): 0.247

MAGLC (mg/m³): 28.265

4. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will

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Perry

PTI A

Issued: 5/22/2003

Emissions Unit ID: **R001**

not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each of the following:
 - a. Each day during which the total Styrene emissions exceeded 6.6 pounds per day and the actual Styrene emissions for each such day.

- b. Each month during which the total Styrene emissions exceeded 1.2 tons per year as a rolling 12-month summation and the actual Styrene emissions for each such 12-month summation.
- c. Each day during which the permittee employs a cleanup material which is a photochemically reactive material and the actual OC emissions for each such day.
- d. Each calendar year during which the total OC emissions from cleanup materials exceeded 0.2 tons per year and the actual OC emissions for each such year.

E. Testing Requirements

1. Emission Limitation:
6.6 pounds per day of Styrene emissions

Applicable Compliance Method:
Compliance shall be based upon the Monitoring and/or Record Keeping requirements specified in Section C.1.
2. Emission Limitation:
1.2 tons per year of Styrene emissions, as a rolling 12-month summation

Applicable Compliance Method:
Compliance shall be based upon the Monitoring and/or Record Keeping requirements specified in Section C.2.
3. Emission Limitation:
0.2 tons per year of OC emissions from cleanup materials

Applicable Compliance Method:
Compliance shall be based upon the Monitoring and/or Record Keeping requirements specified in Section C.2.
4. Any determination of OC content (percent by weight), solids content, or density of a material shall be based on the material as employed, including the addition of any thinner or viscosity reducer to the material. The permittee shall determine the composition of the material by formulation data supplied by the manufacturer or from data determined by an analysis of each material, as received, by U.S. EPA Reference Method 24 as referenced in 40 CFR Part 60, Appendix A. If formulation data is employed, the Ohio EPA may require the permittee to have a Reference Method 24 analysis or an equivalent, alternative method (as approved by Ohio EPA)

performed on the material(s).

F. Miscellaneous Requirements

1. Paragraphs A.1, A.2.c, B.1, C.1, C.2, D.1, E.1, E.2, E.3 and E.4 of these Special Terms and Conditions constitute the federally enforceable portions of this permit.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
R002 - Fitting Assembly: Area No. 2	OAC rule 3745-31-05(A)(3)	Organic compound (OC) emissions shall not exceed 6.6 pounds per day and 1.2 tons per year. See section A.2.a.
	OAC rule 3745-21-07(G)(2)	Cleanup materials: OC emissions shall not exceed 0.2 tons per year. See section A.2.b.
	OAC rule 3745-31-05(D)	The requirements of this rule also include the requirements of OAC rule 3745-31-05(D).
		The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
		See sections A.2.c and B.1.

2. Additional Terms and Conditions

- 2.a The emissions of organic material from the gelcoat and resin materials consist of Styrene, which is photochemically reactive material and a hazardous air pollutant (HAP).

- 2.b** The permittee shall not employ any cleanup material in this emissions unit which is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).
- 2.c** Styrene emissions from this emissions unit shall not exceed 1.2 tons per year, as a rolling 12-month summation.

B. Operational Restrictions

- The emissions of Styrene from this emissions unit shall not exceed 1.2 tons per year, based upon a rolling, 12-month summation of the daily emissions.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Emissions of Styrene, (Tons)</u>
1	0.1
1-2	0.2
1-3	0.3
1-4	0.4
1-5	0.5
1-6	0.6
1-7	0.7
1-8	0.8
1-9	0.9
1-10	1.0
1-11	1.1
1-12	1.2

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual emission limitation for Styrene shall be based upon a rolling, 12-month summation of daily emissions.

C. Monitoring and/or Recordkeeping Requirements

- The permittee shall collect and record the following information daily for the emissions unit (R002):

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- a. The name and identification number of each gelcoat and/or resin employed.
- b. An identification of the type of application (i.e., mechanical non-atomized, gelcoat application, gelcoat controlled spray application, etc.) employed.
- c. The number of tons of each gelcoat employed, in tons per day.

- d. The number of tons of each resin employed, in tons per day.
- e. The Styrene content of each gelcoat and/or resin employed, in percent by weight.
- f. The name and identification number of each cleanup material employed.
- g. The number of gallons of each cleanup material employed, in gallons per day.
- h. The OC content of each cleanup material employed, in pounds of OC per gallon.
- i. The total number of hours the emissions unit was in operation, in hours per day.
- j. Emission factors for emission rates in pounds of Styrene emitted per ton of Resin or Gelcoat employed, in accordance with "CFA guidance, Table 3 - Unified Emission Factor (UEF) Table, UEFs for Open Molding of Composites, July 23, 2001."
- k. The total Styrene emission rate for all gelcoats employed, calculated as the sum of (c) x (j) from section C.1 for each gelcoat, in pounds per day.
- l. The total Styrene emission rate for all resins coats employed, calculated as the sum of (d) x (j) from section C.1 for each resin, in pounds per day.
- m. The total Styrene emission rate for all gelcoats and resins employed, calculated as the sum of (k) and (l) from section C.1, in pounds per day.
- n. The total OC emission rate for all cleanup materials employed, calculated as the sum of (g) x (h) from section C.1 for each cleanup material, in pounds per day.

The gelcoat and resin information must be for the gelcoats and resins as employed, including any thinning solvents added at the emissions unit.

- 2. The permittee shall collect and record the following information monthly for the emissions unit (R002):
 - a. The total Styrene emission rate for all gelcoats and resins employed, calculated as the sum of pounds of daily styrene emissions from section C.1.m, in pounds per month.
 - b. The total OC emission rate for cleanup material employed, calculated as the sum of pounds of daily OC emissions from section C.1.n, in pounds per month.

- c. The total Styrene emission rate for all gelcoats and resins employed, in tons per year as a rolling 12-month summation, calculated as the sum of pounds of monthly styrene emissions from section C.2.a for 12 consecutive months, and divided by 2000. Each new month constitutes a new rolling 12-month summation.
- d. The total OC emission rate for cleanup material employed, in tons per year, calculated as the sum of pounds of monthly OC emissions from section C.2.b for each calendar year.
3. The permit to install for this emissions units P001, R001 and R002 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: StyreneTLV (mg/m³): 85.2Maximum Hourly Emission Rate (lbs/hr): 10.32 Total Styrene emissions from P001, R001
and R002Predicted 1-Hour Maximum Ground-Level
Concentration (mg/m³): 1.861MAGLC (mg/m³): 2.029**Pollutant: Acetone**TLV (mg/m³): 1187.1Maximum Hourly Emission Rate (lbs/hr): 1.37 Total Acetone emissions from P001, R001
and R002Predicted 1-Hour Maximum Ground-Level
Concentration (mg/m³): 0.247MAGLC (mg/m³): 28.265

Emissions Unit ID: R002

4. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each of the following:
 - a. Each day during which the total Styrene emissions exceeded 6.6 pounds per day and the actual Styrene emissions for each such day.
 - b. Each month during which the total Styrene emissions exceeded 1.2 tons per year as a rolling 12-month summation and the actual Styrene emissions for each such 12-month summation.
 - c. Each day during which the permittee employs a cleanup material which is a photochemically reactive material and the actual OC emissions for each such day.
 - d. Each calendar year during which the total OC emissions from cleanup materials exceeded 0.2 tons per year and the actual OC emissions for each such year.

E. Testing Requirements

1. Emission Limitation:
6.6 pounds per day of Styrene emissions

Applicable Compliance Method:
Compliance shall be based upon the Monitoring and/or Record Keeping requirements specified in Section C.1.
2. Emission Limitation:
1.2 tons per year of Styrene emissions, as a rolling 12-month summation

Applicable Compliance Method:
Compliance shall be based upon the Monitoring and/or Record Keeping requirements specified in Section C.2.
3. Emission Limitation:
0.2 tons per year of OC emissions from cleanup materials

Applicable Compliance Method:
Compliance shall be based upon the Monitoring and/or Record Keeping requirements specified in Section C.2.

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4. Any determination of OC content (percent by weight), solids content, or density of a material shall be based on the material as employed, including the addition of any thinner or viscosity reducer to the material. The permittee shall determine the composition of the material by formulation data supplied by the manufacturer or from data determined by an analysis of each material, as received, by U.S. EPA Reference Method 24 as referenced in 40 CFR Part 60, Appendix A. If formulation data is employed, the Ohio EPA may require the permittee to have a Reference Method 24 analysis or an equivalent, alternative method (as approved by Ohio EPA) performed on the material(s).

F. Miscellaneous Requirements

1. Paragraphs A.1, A.2.c, B.1, C.1, C.2, D.1, E.1, E.2, E.3 and E.4 of these Special Terms and Conditions constitute the federally enforceable portions of this permit.