



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
122 S. Front Street  
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049  
Columbus, OH 43216-1049

**RE: FINAL PERMIT TO INSTALL  
STARK COUNTY  
Application No: 15-01457**

**CERTIFIED MAIL**

Y	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
WWW	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

**DATE: 1/7/2003**

U.S. Fiberglass Products, Inc.  
Thomas Coomes  
P.O. Box 41 2660 Applegrove Street NE  
Middlebranch, OH 44652

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

Canton LAA



Permit To Install  
Terms and Conditions

Issue Date: 1/7/2003  
Effective Date: 1/7/2003

**FINAL PERMIT TO INSTALL 15-01457**

Application Number: 15-01457  
APS Premise Number: 1576001621  
Permit Fee: \$1600  
Name of Facility: U.S. Fiberglass Products, Inc.  
Person to Contact: Thomas Coomes  
Address: P.O. Box 41 2660 Applegrove Street NE  
Middlebranch, OH 44652

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**2660 Applegrove Street NE  
Middlebranch, Ohio**

Description of proposed emissions unit(s):  
**The PTI is to allow the installation of four spray lay-up operations and the modification of an existing gel coat station, emissions unit P004.**

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. State and Federally Enforceable Permit To Install General Terms and Conditions

#### 1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written 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. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

## 2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

## 3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

## 4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

## 5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition

depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

## 6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

## 7. 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.

## 8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.



emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. 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 source(s) covered by this permit.

#### **11. 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.

#### **12. 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.

**B. State Only Enforceable 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 Related to Monitoring and Recordkeeping Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the 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 state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the 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. 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.

**4. 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.

**5. 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.

**6. 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.

**7. Applicability**

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

**8. 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.

9. **Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

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.

C. **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	46.5
VOC	40.5
Styrene	38.0

**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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>
<p>P004 - Gel Coat No. 1.</p> <p>The definition of a gel coat is a polyester resin surface coating, either pigmented or clear, that provides a cosmetic enhancement and improves resistance to degradation from exposure to the elements.</p> <p>(Chapter 31 Modification)</p> <p>(This PTI supercedes PTI 15-1264 issued on August 13, 1997.)</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>Styrene emissions from this emissions unit shall not exceed 37.1 lbs/hr. (The hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)</p> <p>Volatile Organic Compound (VOC) emissions from this emissions unit shall not exceed 37.9 lbs/hr. (The hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)</p> <p>Organic Compound (OC) emissions from this emissions unit shall not exceed 39.9 lbs/hr. (The hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)</p> <p>Styrene emissions from this emissions unit shall not exceed 4.78 tons/yr. To achieve this limit, the maximum amount of gel coat usage for this emissions unit shall not exceed 32.5 tons per year based upon a rolling, 12-month summation of the gel coat usage rates.</p>

VOC emissions from this emissions unit shall not exceed 4.78 tons/yr. To achieve this limit, the maximum amount of gel coat usage for this emissions unit shall not exceed 32.5 tons per year based upon a rolling, 12-month summation of the gel coat usage rates. (This limit does not include the VOC emissions generated by the usage of mold release.)

OC emissions from this emissions unit shall not exceed 4.78 tons/yr. To achieve this limit, the maximum amount of gel coat usage for this emissions unit shall not exceed 32.5 tons per year based upon a rolling, 12-month summation of the gel coat usage rates. (This limit does not include OC emissions generated by the use of cleanup material and mold release.)

The combined VOC emissions from the use of mold release from this entire facility shall not exceed 2.5 tons/yr based upon a rolling, 12-month summation of the VOC emissions.

The combined OC emissions from the use of mold release and cleanup material from this entire facility shall not exceed 8.5 tons/yr based upon a rolling, 12-month summation of the OC emissions.

See Operational Restrictions A.II.1 through A.II.7.

In accordance with OAC rule 3745-21-07(G)(9)(g), Best Available Technology (BAT) for this emissions unit, as established pursuant to OAC rule 3745-31-05, has been determined to be more stringent than, or inconsistent with, the requirements of OAC rule 3745-21-07(G).

OAC rule 3745-21-07(G)(9)(g)

OAC rule 3745-15-07

See Part I, Term B.4.

40 CFR Part 63 Subpart WWWW  
Reinforced Plastic Composites  
Production

See section I.2.a. below.

## 2. Additional Terms and Conditions

- 2.a** The permittee will be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reinforced Plastic Composites Production, 40 CFR Part 63, Subpart WWWW. U.S. EPA failed to promulgate this standard by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR Part 63, Subpart B (40 CFR Parts 63.50 through 63.56), the permittee shall submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application shall be submitted in two parts. The deadline to submit the Part I application, as specified in 40 CFR Part 63.53, was May 15, 2002.
- 2.b** If the final MACT standard is not promulgated by the deadline specified by U.S. EPA, the permittee shall submit the Part II application as specified in 40 CFR Part 63.
- 2.c** If the NESHAP is promulgated before May 15, 2004, the facility shall be subject to the rule as an existing major source with a compliance date as specified in the NESHAP. Pursuant to the Subpart, the permittee shall submit the following notifications:
- a. Within 120 days after promulgation of 40 CFR Part 63, Subpart WWWW, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report, in accordance with 40 CFR Part 63.9(b)(2):
    - i. the name and mailing address of the permittee;
    - ii. the physical location of the source if it is different from the mailing address;
    - iii. identification of the relevant MACT standard and the source's compliance date;
    - iv. a brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each HAP; and
    - v. a statement confirming the facility is a major source for HAPs.

- b. Within 60 days following completion of any required compliance demonstration activity specified in 40 CFR Part 63, Subpart WWWW, the permittee shall submit a notification of compliance status that contains the following information:
  - i. the methods used to determine compliance;
  - ii. the results of any performance tests, visible emission observations, continuous monitoring systems performance evaluations, and/or other monitoring procedures or methods that were conducted;
  - iii. the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;
  - iv. the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR Part 63, Subpart WWWW;
  - v. an analysis demonstrating whether the affected source is a major source or an area source;
  - vi. a description of the air pollution control equipment or method for each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and
  - vii. a statement of whether or not the permittee has complied with the requirements of 40 CFR Part 63, Subpart WWWW.

**II. Operational Restrictions**

- 1. The maximum styrene monomer weight percent, as applied, for each gel coats employed in this emissions unit shall not exceed ~~thirty-five percent (35%)~~ <sup>three 33</sup>.
- 2. The maximum annual gel coat usage for this emissions unit shall not exceed 32.5 tons per year based upon a rolling, 12-month summation of the gel coat usage rates.

To ensure enforceability during the 12 calendar months following the issuance of this permit, the permittee shall not exceed the gel coat usage rate specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Tons of Gel Coat Usage</u>
1	2.7
1-2	5.4
1-3	8.1

1-4	10.8
1-5	13.5
1-6	16.2
1-7	18.9
1-8	21.6
1-9	24.3
1-10	27.0
1-11	29.7
1-12	32.5

After the first 12 calendar months following issuance of this permit, compliance with the annual gel coat usage limitation for this emissions unit shall be based upon a rolling, 12-month summation of the tons of gel coat used.

3. The only cleanup material the permittee shall employ in this facility shall be acetone, which has a density of 6.6 lbs OC/gallon, as applied.
4. The combined OC emissions from the use of mold release and cleanup material from this entire facility shall not exceed 8.5 tons/yr based upon the rolling, 12-month summation of the OC emissions.

To ensure enforceability during the 12 calendar months following the issuance of this permit, the permittee shall not exceed the OC emission rates from the use of cleanup material and mold release specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative OC Emission Rates from Cleanup Material &amp; Mold Release Usage (tons)</u>
1	0.71
1-2	1.42
1-3	2.13
1-4	2.84
1-5	3.55
1-6	4.25
1-7	4.96
1-8	5.67
1-9	6.38
1-10	7.09
1-11	7.80
1-12	8.50

After the first 12 calendar months following issuance of this permit, compliance with the annual OC emission rates from the use of cleanup solvent and mold release for the entire facility shall be based upon a rolling, 12-month summation of the tons of OC emissions from the use of cleanup solvent and mold release.

5. The combined VOC emissions from the use of mold release from this entire facility shall not exceed 2.5 tons/yr based upon the rolling, 12-month summation of the VOC emissions.

To ensure enforceability during the 12 calendar months following the issuance of this permit, the permittee shall not exceed the VOC emission rates from the use of mold release specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative VOC Emission Rates from Mold Release Usage (tons)</u>
1	0.20
1-2	0.41
1-3	0.62
1-4	0.83
1-5	1.04
1-6	1.25
1-7	1.46
1-8	1.67
1-9	1.88
1-10	2.09
1-11	2.30
1-12	2.50

After the first 12 calendar months following issuance of this permit, compliance with the annual VOC emission rates from mold release usage for this entire facility shall be based upon a rolling, 12-month summation of the tons of VOC emissions from mold release usage.

6. The permittee shall operate the dry filtration system whenever this emissions unit is in operation.
7. When emissions unit P004 is being operated, no more than two of the following emissions units may be operated concurrently: P005, P006, P007, and P008.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain daily records of the following information for this emissions unit:
- the name and identification of each gel coat and cleanup material employed; and
  - the weight fraction of styrene monomer for each gel coat, as applied.
2. The permittee shall collect and record the following information each month for this emissions unit:
- the gel coat usage rate;

- b. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the gel coat usage; and
  - c. during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative gel coat usage rate for each calendar month.
3. The permittee shall collect and record the following information each month for the entire facility:
- a. the company identification for each cleanup material employed;
  - b. the number of pounds of each cleanup material employed;
  - c. the OC content of each cleanup material employed, in pounds per gallon;
  - d. the total OC emission rate for each cleanup material employed, in pounds or tons;
  - e. the total OC emission rate for all cleanup materials employed, (summation of d), in tons; and
  - f. the annual, year-to-date OC emission rate for all cleanup materials employed, (summation of "e" for each calendar month to date from January to December), in tons.

The permittee may calculate OC emissions from cleanup materials in accordance with the following formula if waste cleanup materials are sent off site for disposal/reclamation:

OC emissions = (total gallons of cleanup material used) x (solvent density of cleanup material) - (total gallons of cleanup material sent off site [minus solids]) x (solvent density of cleanup material).

4. The permittee shall collect and record the following information each month for the entire facility:
- a. the company identification for each mold release employed;
  - b. the number of gallons of each mold release employed;
  - c. the OC and VOC content of each mold release employed, in pounds per gallon;
  - d. the total OC and VOC emission rate for each mold release employed, (b x c), in pounds or tons;
  - e. the total OC and VOC emission rate for all mold release employed, (summation of d), in tons;

- f. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the OC emission rates from cleanup material and mold release usage;
  - g. during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative OC emission rates from cleanup material and mold release usage for each calendar month;
  - h. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the VOC emission rates from mold release usage; and
  - i. during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative VOC emission rates from mold release usage rate for each calendar month.
5. The permittee shall maintain daily records that document any time periods when the dry filtration system was not in service when the emissions unit was in operation.
  6. Records shall be maintained when more than two of the following emission units are being operated with P004 concurrently: P005, P006, P007, P008.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify the number of pounds of each cleanup material employed that was not acetone.
2. The permittee shall submit deviation (excursion) reports which identify the number of pounds and the weight fraction of styrene monomer of any noncomplying gel coat (i.e., for weight fraction of monomer) that was employed.
3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month gel coat usage limitation of 32.5 tons/yr and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative gel coat usage.
4. The permittee shall notify the Canton local air agency in writing of any daily record showing that the dry filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Canton local air agency within 30 days after the event.
5. The permittee shall submit deviation (excursion) reports which identify any times when emissions unit P004 was operating and more than two of the following emissions units were also operating concurrently: P005, P006, P007, and P008.

6. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month facility-wide VOC emissions limitation of 2.5 tons/yr from the usage of mold release and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative facility-wide VOC emissions limitation from the use of mold release.
7. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month facility-wide OC emissions limitation of 8.5 tons/yr from the usage of mold release and cleanup material and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative facility-wide OC emissions limitation from the use of mold release and cleanup material.
8. Except as otherwise specified, the above reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1)(c).

## V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

- a. Emissions Limitation

Styrene emissions from this emissions unit shall not exceed 37.1 lbs/hr. (The hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)

Applicable Compliance Method

The hourly emissions limitation represents the potential to emit for this emissions unit, i.e., the maximum usage rate of 252.25 lbs of gel coat/hr and the maximum monomer weight percent allowed under the restrictions of this permit, calculated using the following equation:

252.25 lbs gel coat = maximum production

33% styrene content of gelcoat used

Emission factor from United Emission Factors for Gelcoat Application = 294 lbs styrene/ton gel coat

$252.25 \text{ lbs gel coat/hr} \times 1 \text{ ton}/2000 \text{ lbs} \times 294 \text{ lbs styrene/ton of resin} = 37.1 \text{ lbs styrene/hr}$

Therefore, no additional requirements are necessary to show compliance with this limit.

- b. Emissions Limitation

Volatile Organic Compound (VOC) emissions from this emissions unit shall not exceed 37.9 lbs/hr. (The hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)

**Applicable Compliance Method**

The hourly emissions limitation represents the potential to emit for this emissions unit, i.e., the maximum usage rate of 252.25 lbs of gel coat/hr and the maximum monomer weight percent allowed under the restrictions of this permit, calculated using the following equation:

252.25 lbs gel coat = maximum production

33% styrene content of gelcoat used

Emission factor from United Emission Factors for Gelcoat Application = 294 lbs styrene/ton gel coat

$252.25 \text{ lbs gel coat/hr} \times 1 \text{ ton}/2000 \text{ lbs} \times 294 \text{ lbs styrene/ton of resin} = 37.1 \text{ lbs styrene/hr}$

The average maximum VOC emissions from the use of mold release is 0.8 lb/hr.

$37.1 \text{ lbs VOC/hr} + 0.8 \text{ lb VOC/hr} = 37.9 \text{ lbs VOC/hr}$

Therefore, no additional requirements are necessary to show compliance with this limit.

c. **Emissions Limitation**

Organic Compound (OC) emissions from this emissions unit shall not exceed 39.9 lbs/hr. (The hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)

**Applicable Compliance Method**

The hourly emissions limitation represents the potential to emit for this emissions unit, i.e., the maximum usage rate of 252.25 lbs of gel coat/hr and the maximum monomer weight percent allowed under the restrictions of this permit, calculated using the following equation:

252.25 lbs gel coat = maximum production

33% styrene content of gelcoat used

Emission factor from United Emission Factors for Gelcoat Application = 294 lbs styrene/ton gel coat

$252.25 \text{ lbs gel coat/hr} \times 1 \text{ ton}/2000 \text{ lbs} \times 294 \text{ lbs styrene/ton of resin} = 37.1 \text{ lbs styrene/hr}$

The average maximum OC emissions from the use of mold release is 0.8 lb/hr.

The maximum OC emissions from the use of cleanup materials is 2 lbs/hr.

$37.1 \text{ lbs OC/hr} + 0.8 \text{ lb OC/hr} + 2 \text{ lbs OC/hr} = 39.9 \text{ lbs OC/hr}$

- d. Emissions Limitation  
Styrene emissions from this emissions unit shall not exceed 4.78 tons/yr. To achieve this limit, the maximum amount of gel coat usage for this emissions unit shall not exceed 32.5 tons per year based upon a rolling, 12-month summation of the gel coat usage rates.

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping of gel coat usage found in A.III.2.

- e. Emissions Limitation  
VOC emissions from this emissions unit shall not exceed 4.78 tons/yr. To achieve this limit, the maximum amount of gel coat usage for this emissions unit shall not exceed 32.5 tons per year based upon a rolling, 12-month summation of the gel coat usage rates. (This limit does not include the VOC emissions generated by the use of mold release.)

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping of gel coat usage found in A.III.2.

- f. Emissions Limitation  
OC emissions from this emissions unit shall not exceed 4.78 tons/yr. To achieve this limit, the maximum amount of gel coat usage for this emissions unit shall not exceed 32.5 tons per year based upon a rolling, 12-month summation of the gel coat usage rates. (This limit does not include OC emissions generated by the use of cleanup material and mold release.)

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping of gel coat usage found in A.III.2.

- g. Emissions Limitation  
The combined VOC emissions from the use of mold release from this entire facility shall not exceed 2.5 tons/yr based upon a rolling, 12-month summation of the VOC emissions.

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping found in A.III.4.

- h. Emissions Limitation  
The combined OC emissions from the use of mold release and cleanup material from this entire facility shall not exceed 8.5 tons/yr based upon a rolling, 12-month summation of the OC emissions.

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping found in A.III.3 and A.III.4.

2. Compliance with the operational limitations of this permit shall be determined in accordance with the following methods:

a. Operational Limitation

The maximum amount of gel coat usage shall not exceed 32.5 tons/yr, based upon a rolling, 12-month summation of the gel coat usage.

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of gel coat usage as specified in section A.III.2.

b. Operational Limitation

The maximum styrene monomer weight percent, as applied, for the gel coats employed in this emissions unit shall not exceed thirty-five percent (35%).

Applicable Compliance Method

The percent styrene monomer content shall be determined by USEPA Reference Method 24 and SCAQMD Method 312. When Method 24 is used, the weight percent monomer shall be taken to be the weight percent volatiles of the uncatalyzed resin. Compliance shall be achieved based on the monitoring and recordkeeping of gel coat usage as specified in section A.III.1.

c. Operational Limitation

The only cleanup material the permittee shall employ in this facility shall be acetone, which has a density of 6.6 lbs OC/gallon, as applied.

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of cleanup material usage as specified in section A.III.1.

d. Operational Limitation

The permittee shall operate the dry filtration system whenever this emissions unit is in operation.

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of the use of the dry filtration system as specified in section A.III.5.

e. Operational Limitation

When emissions unit P004 is being operated, no more than two of the following emissions units may be operated concurrently: P005, P006, P007, and P008.

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of emissions units operating schedules as specified in section A.III.6.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. 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>
P004 - Gel Coat No 1	Air Toxics Policy	See Term B.III.1

2. **Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for these five emissions units (P004, P005, P006, P007, and P008) for the emissions of styrene was evaluated based on the actual 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. Using the SCREEN 3.0 model and comparing 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 "worst case" pollutant:

Pollutant: styrene

TLV (ug/m3): 85,200

Maximum Hourly Emission Rate from P004, P005, P006, P007, and P008 (lbs/hr): 81.66 lbs/hour

Predicted 1-Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 1,792

MAGLC (ug/m3): 2,028 (85,200 ug/m3 divided by 42)

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 previously modeled;
  - b. changes in the composition of the materials used, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that is 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.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the changes(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 (V)(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 shows the results of the application of the "Air Toxic Policy" for the change.

#### IV. Reporting Requirements

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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>
P005 - Spray lay-up gun No. 1	OAC rule 3745-31-05 (A)(3)	Styrene emissions from this emissions unit shall not exceed 22.2 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)  Volatile Organic Compound (VOC) emissions from this emissions unit shall not exceed 23.9 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)  Organic Compound (OC) emissions from this emissions unit shall not exceed 27.9 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)  Styrene emissions from this emissions unit shall not exceed 16.61 tons/yr.  VOC emissions from this emissions unit shall not exceed 19.11 tons/yr.

OC emissions from this emissions unit shall not exceed 25.11 tons/yr.

The combined styrene emissions from emissions units P005 and P006 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage.

The combined VOC emissions from emissions units P005 and P006 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage. (This limit does not include VOC emissions generated by the use of mold release.)

The combined OC emissions from emissions units P005 and P006 shall not exceed 16.61 tons /yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage. (This limit does include OC emissions from cleanup material and mold release usage.)

The combined VOC emissions from the use of mold release from this entire facility shall not exceed 2.5 tons/yr based upon a rolling, 12-month summation of the VOC emissions.

The combined OC emissions from the use of mold release and cleanup material from this entire facility shall not exceed 8.5 tons/yr based upon a rolling, 12-month summation of the OC emissions.

OAC rule 3745-21-07(G)(9)(g)

See Operational Restrictions A.II.1 through A.II.9.

OAC rule 3745-15-07

40 CFR Part 63 Subpart WWWW  
Reinforced Plastic Composites  
Production

In accordance with OAC rule 3745-21-07(G)(9)(g), Best Available Technology (BAT) for this emissions unit, as established pursuant to OAC rule 3745-31-05, has been determined to be more stringent than, or inconsistent with, the requirements of OAC rule 3745-21-07(G).

See Part I, Term B.7.

See section I.2.a. below.

## 2. Additional Terms and Conditions

- 2.a** The permittee will be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reinforced Plastic Composites Production, 40 CFR Part 63, Subpart WWWW. U.S. EPA failed to promulgate this standard by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR Part 63, Subpart B (40 CFR Parts 63.50 through 63.56), the permittee shall submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application shall be submitted in two parts. The deadline to submit the Part I application, as specified in 40 CFR Part 63.53, was May 15, 2002.
- 2.b** If the final MACT standard is not promulgated by the deadline specified by U.S. EPA, the permittee shall submit the Part II application as specified in 40 CFR Part 63.
- 2.c** If the NESHAP is promulgated before May 15, 2004, the facility shall be subject to the rule as an existing major source with a compliance date as specified in the NESHAP. Pursuant to the Subpart, the permittee shall submit the following notifications:
- a. Within 120 days after promulgation of 40 CFR Part 63, Subpart WWWW, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report, in accordance with 40 CFR Part 63.9(b)(2):
    - i. the name and mailing address of the permittee;
    - ii. the physical location of the source if it is different from the mailing address;

- iii. identification of the relevant MACT standard and the source's compliance date;
  - iv. a brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each HAP; and
  - v. a statement confirming the facility is a major source for HAPs.
- b. Within 60 days following completion of any required compliance demonstration activity specified in 40 CFR Part 63, Subpart WWWW, the permittee shall submit a notification of compliance status that contains the following information:
- i. the methods used to determine compliance;
  - ii. the results of any performance tests, visible emission observations, continuous monitoring systems performance evaluations, and/or other monitoring procedures or methods that were conducted;
  - iii. the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;
  - iv. the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR Part 63, Subpart WWWW;
  - v. an analysis demonstrating whether the affected source is a major source or an area source;
  - vi. a description of the air pollution control equipment or method for each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and
  - vii. a statement of whether or not the permittee has complied with the requirements of 40 CFR Part 63, Subpart WWWW.

## II. Operational Restrictions

1. The maximum styrene monomer weight percent, as applied, for each resin employed in this emissions unit shall not exceed forty-four percent (44%).
2. The maximum annual combined resin usage for emissions units P005 and P006 shall not exceed 375.2 tons per year based upon a rolling, 12-month summation of the resin usage rates.

To ensure enforceability during the 12 calendar months following the issuance of this permit, the permittee shall not exceed the resin usage rate specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Tons of Resin Usage</u>
1	31.3
1-2	62.5
1-3	93.8
1-4	125.1
1-5	156.3
1-6	187.6
1-7	218.9
1-8	250.1
1-9	281.4
1-10	312.7
1-11	343.9
1-12	375.2

After the first 12 calendar months following issuance of this permit, compliance with the combined annual resin usage for emissions units P005 and P006 shall be based upon a rolling, 12-month summation of the tons of resin used.

3. The only cleanup material the permittee shall employ in this facility shall be acetone, which has a density of 6.6 lbs OC/gallon, as applied.
4. The combined OC emissions from the use of mold release and cleanup material from this entire facility shall not exceed 8.5 tons/yr based upon rolling, 12-month summation of the OC emissions.

To ensure enforceability during the 12 calendar months following the issuance of this permit, the permittee shall not exceed the OC emission rates from the use of cleanup material and mold release specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative OC Emission Rates from Cleanup Material &amp; Mold Release Usage (tons)</u>
1	0.71
1-2	1.42
1-3	2.13
1-4	2.84
1-5	3.55
1-6	4.25
1-7	4.96
1-8	5.67

1-9	6.38
1-10	7.09
1-11	7.80
1-12	8.50

After the first 12 calendar months following issuance of this permit, compliance with the annual OC emission rates from the use of cleanup material and mold release from the entire facility shall be based upon a rolling, 12-month summation of the tons of OC emissions from the use of cleanup solvent and mold release.

5. The combined VOC emissions from the use of mold release from this entire facility shall not exceed 2.5 tons/yr based upon the rolling, 12-month summation of the VOC emissions.

To ensure enforceability during the 12 calendar months following the issuance of this permit, the permittee shall not exceed the emission rates from the use of mold release specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative VOC Emission Rates from Mold Release Usage (tons)</u>
1	0.20
1-2	0.41
1-3	0.62
1-4	0.83
1-5	1.04
1-6	1.25
1-7	1.46
1-8	1.67
1-9	1.88
1-10	2.09
1-11	2.30
1-12	2.50

After the first 12 calendar months following issuance of this permit, compliance with the annual VOC emission rates from the use of mold release from the entire facility shall be based upon a rolling, 12-month summation of the tons of VOC emissions from the use of mold release.

6. The permittee shall operate and maintain the dry filtration system to control particulate emissions whenever this emissions unit is in operation.
7. When emissions unit P005 is being operated, no more than two of the following emissions units may be operated concurrently: P004, P006, P007, and P008.
8. The permittee shall utilize Non-atomized Application Equipment in this emissions unit. Non-atomized Application Equipment means the following:

- a. flow coat nozzles for gel coat application equipment;
- b. flow coat nozzle and chopper chute for resin and glass application equipment; and
- c. pressure fed roller equipment.

(For further details, see the CFA's "Controlled Spray Handbook dated 9/98".)

9. The permittee shall only employ vapor suppressant resins.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain daily records of the following information for this emissions unit:
  - a. the name and identification of each resin and cleanup material employed;
  - b. the weight fraction of styrene monomer (in percent) for each resin, as applied;
  - c. documentation that Non-atomized Application Equipment was employed; and
  - d. documentation that each resin employed was a vapor suppressant resin.
2. The permittee shall collect and record the following information each month for emissions units P005 and P006 as a group:
  - a. the combined resin usage rate;
  - b. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the combined resin usage; and
  - c. during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative combined resin usage rate for each calendar month.
3. The permittee shall collect and record the following information each month for the entire facility:
  - a. the company identification for each cleanup material employed;
  - b. the number of pounds of each cleanup material employed;
  - c. the OC content of each cleanup material employed, in pounds per gallon;
  - d. the total OC emission rate for each cleanup material employed, in pounds or tons;

- e. the total OC emission rate for all cleanup materials employed, (summation of d), in tons; and
- f. the annual, year-to-date OC emission rate for all cleanup materials employed, (summation of "e" for each calendar month to date from January to December), in tons.

The permittee may calculate OC emissions from cleanup materials in accordance with the following formula if waste cleanup materials are sent off site for disposal/reclamation:

OC emissions = (total gallons of cleanup material used) x (solvent density of cleanup material) - (total gallons of cleanup material sent off site [minus solids]) x (solvent density of cleanup material).

- 4. The permittee shall collect and record the following information each month for the entire facility:
  - a. the company identification for each mold release employed;
  - b. the number of gallons of each mold release employed;
  - c. the OC and VOC content of each mold release employed, in pounds per gallon;
  - d. the total OC and VOC emission rate for each mold release employed, (b x c), in pounds or tons;
  - e. the total OC and VOC emission rate for all mold release employed, (summation of d), in tons; and
  - f. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the OC emission rates from cleanup material and mold release usage;
  - g. during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative OC emission rates from cleanup material and mold release usage for each calendar month;
  - h. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the VOC emission rates from mold release usage; and
  - i. during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative VOC emission rates from mold release usage rate for each calendar month.

5. The permittee shall maintain daily records that document any time periods when the dry filtration system was not in service when the emissions unit was in operation.
6. Records shall be maintained when more than two of the following emission units are being operated with P005 concurrently: P004, P006, P007, P008.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify the number of pounds of cleanup material employed that was not acetone.
2. The permittee shall submit deviation (excursion) reports which identify the number of pounds of noncomplying resin (i.e., for weight fraction of styrene monomer) employed.
3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month resin combined usage limitation of 375.2 tons/yr for emissions units P005 and P006, and for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative combined resin usage.
4. The permittee shall notify the Canton local air agency in writing of any daily record showing that the dry filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Canton local air agency within 30 days after the event occurs.
5. The permittee shall submit deviation (excursion) reports which identify any times when emissions unit P005 was operating and more than two of the following emissions units were also operating concurrently: P004, P006, P007, and P008.
6. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month facility-wide VOC emissions limitation of 2.5 tons/yr from the usage of mold release and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative facility-wide VOC emissions limitation from the use of mold release.
7. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month facility-wide OC emissions limitation of 8.5 tons/yr from the usage of mold release and cleanup material and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative facility-wide OC emissions limitation from the use of mold release and cleanup material.
8. The permittee shall submit deviation (excursion) reports which identify any use of spray equipment by this emissions unit that did not meet the definition of Non-atomized Application Equipment found in section A.II.8.

- 9. The permittee shall submit deviation (excursion) reports which identify any use of resins that did not meet the definition of vapor suppressant resin.
- 10. Except as otherwise specified, the above reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1)(c).

**V. Testing Requirements**

- 1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emissions Limitation

Styrene emissions from this emissions unit shall not exceed 22.2 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)

Applicable Compliance Method

The hourly emissions limitation represents the potential to emit for this emissions unit, i.e., the maximum usage rate of 500 lbs of resin/hr and the maximum monomer weight percent allowed under the restrictions of this permit, calculated using the following equation:

Using the emissions factor (EF) from Unified Emission Factors for open Molding of Composites - Mechanical, Non-atomized with vapor suppressant resin (VSR) and 45% styrene content equates to an emission factor of 105 lbs styrene/ton of resin. 44

Mechanical Non-Atomized Controlled Spray Emission Factor x (1 - (0.45 x specific VSR reduction factor)) = EF

VSR reduction factor = 0.3475 per Ashland's testing

500 lbs resin/hr = maximum production capacity

$$EF = 105 \times [1 - (0.45 \times 0.3475)]$$

$$EF = 88.58 \text{ lbs styrene emitted/ton of resin used}$$

500 lbs resin/hr x 1 ton/2000 lbs x 88.58 lbs styrene/ton of resin = 22.15 lbs styrene/hr  
Therefore, no additional requirements are necessary to show compliance with this limit.

b. Emissions Limitation

Volatile Organic Compound (VOC) emissions from this emissions unit shall not exceed 23.9 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)

**Applicable Compliance Method**

The hourly emissions limitation represents the potential to emit for this emissions unit, i.e., the maximum usage rate of 500 lbs of resin/hr and the maximum monomer weight percent allowed under the restrictions of this permit, calculated using the following equation:

Using the emissions factor (EF) from Unified Emission Factors for Open Molding of Composites - Mechanical, Non-atomized with vapor suppressant resin (VSR).

45% styrene content

VSR reduction factor = 0.3475 per Ashland's testing

500 lbs resin/hr = maximum production capacity

$$EF = 105 \times [1 - (0.45)(0.3475)]$$

$$EF = 88.58 \text{ lbs styrene emitted/ton of resin produced}$$

$$500 \text{ lbs resin/hr} \times 1 \text{ ton/2000 lbs} \times 88.58 \text{ lbs styrene/ton of resin} = 22.15 \text{ lbs styrene/hr}$$

Maximum average mold release VOC emissions are 1.7 lbs/hr.

$$22.15 \text{ VOC lbs/hr} + 1.7 \text{ lbs VOC/hr} = 23.85 \text{ lbs VOC/hr}$$

Therefore, no additional requirements are necessary to show compliance with this limit.

**c. Emissions Limitation**

Organic Compound (OC) emissions from this emissions unit shall not exceed 27.9 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)

**Applicable Compliance Method**

$$500 \text{ lbs resin/hr} \times 1 \text{ ton/2000 lbs} \times 88.58 \text{ lbs styrene/ton of resin} = 22.15 \text{ lbs styrene/hr}$$

Maximum average mold release usage results in OC emissions of 1.7 lbs/hr.

Maximum cleanup material usage results in OC emissions of 4.0 lbs/hr.

$$22.15 \text{ OC lbs/hr} + 1.7 \text{ lbs OC/hr} + 4 \text{ lbs OC/hr} = 27.85 \text{ lbs OC/hr}$$

Therefore, no additional requirements are necessary to show compliance with this limit.

**d. Emissions Limitation**

The styrene emissions from this emissions unit shall not exceed 16.61 tons/yr.

**Applicable Compliance Method**

The combined styrene emissions limit for emissions units P005 and P006 is 16.61 tons/yr.

e. Emissions Limitation

The VOC emissions from this emissions unit shall not exceed 19.11 tons/yr.

Applicable Compliance Method

The combined VOC/styrene emissions limit for emissions units P005 and P006 is 16.61 tons/yr.

The facility-wide VOC emissions limit from the use of mold release is 2.5 tons/yr.

$$16.61 \text{ tons VOC/yr} + 2.5 \text{ tons VOC/yr} = 19.11 \text{ tons VOC/yr}$$

f. Emissions Limitation

The OC emissions from this emissions unit shall not exceed 25.11 tons/yr.

Applicable Compliance Method

The combined OC emissions limit for emissions units P005 and P006 is 16.61 tons/yr.

The facility-wide OC emissions limit from the use of mold release is 2.5 tons/yr.

The facility-wide OC emissions limit from the use of cleanup material is 6 tons/yr.

$$16.61 \text{ tons OC/yr} + 2.5 \text{ tons OC/yr} + 6 \text{ tons OC/yr} = 25.11 \text{ tons OC/yr}$$

g. Emissions Limitation

The combined styrene emissions from emissions units P005 and P006 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage.

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping of resin usage found in A.III.2.

h. Emissions Limitation

The combined VOC emissions from emissions units P005 and P006 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage. (This limit does not include VOC emissions generated by the use of mold release.)

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping of resin usage found in A.III.2.

i. Emissions Limitation

The combined OC emissions from emissions units P005 and P006 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed

375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage. (This limit does not include OC emissions generated by the use of mold release and cleanup material.)

**Applicable Compliance Method**

Compliance shall be demonstrated by monitoring and recordkeeping of resin usage found in A.III.2.

j. **Emissions Limitation**

The combined VOC emissions from the use of mold release from this entire facility shall not exceed 2.5 tons/yr based upon a rolling, 12-month summation of the VOC emissions.

**Applicable Compliance Method**

Compliance shall be demonstrated by monitoring and recordkeeping found in A.III.4.

k. **Emissions Limitation**

The combined OC emissions from the use of mold release and cleanup material from this entire facility shall not exceed 8.5 tons/yr based upon a rolling, 12-month summation of the OC emissions.

**Applicable Compliance Method**

Compliance shall be demonstrated by monitoring and recordkeeping found in A.III.3 and A.III.4.

2. Compliance with the operational limitations of this permit shall be determined in accordance with the following methods:

a. **Operational Limitation**

The maximum amount of combined resin usage for emissions units P005 and P006 shall not exceed 375 tons/yr, based upon a rolling, 12-month summation of the resin usage.

**Applicable Compliance Method**

Compliance shall be achieved based on the monitoring and recordkeeping of resin usage as specified in section A.III.2.

b. **Operational Limitation**

The maximum styrene monomer weight percent, as applied, for the resins employed in this emissions unit shall not exceed forty-four percent (44%).

**Applicable Compliance Method**

The percent styrene monomer content shall be determined by USEPA Reference Method 24 or SCAQMD Method 312. When Method 24 is used, the weight percent monomer shall be taken to be the weight percent volatiles of the uncatalyzed resin. An alternative method may be substituted if agreed to in writing by USEPA. Compliance shall be

achieved based on the monitoring and recordkeeping of resin usage as specified in section A.III.1.

c. Operational Limitation

The only cleanup material the permittee shall employ in this facility shall be acetone, which has a density of 6.6 lbs OC/gallon, as applied.

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of acetone usage as specified in section A.III.1.

d. Operational Limitation

The permittee shall operate the dry filtration system whenever this emissions unit is in operation.

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping specified in section A.III.5.

e. Operational Limitation

When emissions unit P005 is being operated, no more than two of the following emissions units may be operated concurrently: P004, P006, P007, and P008.

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of emissions units' operating schedules as specified in section A.III.6.

f. Operational Limitation

The permittee shall utilize Non-atomized Application Equipment in this emissions unit. Non-atomized Application Equipment means the following:

- i. flow coat nozzles for gel coat application equipment;
- ii. flow coat nozzle and chopper chute for resin and glass application equipment; and
- iii. pressure fed roller equipment.

(For further details, see the CFA's "Controlled Spray Handbook dated 9/98".)

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of the use of Non-atomized Application Equipment as specified in section A.III.1.c.

- g. **Operational Limitation**  
The permittee shall only employ vapor suppressant resins.

**Applicable Compliance Method**

Compliance shall be achieved based on the monitoring and recordkeeping of resin usage as specified in section A.III.1.d.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. 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>
P005 - Spray lay-up gun No. 1	Air Toxic Policy	See Term B.III.1.

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for these five emissions units (P004, P005, P006, P007, and P008) for the emissions of styrene was evaluated based on the actual 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. Using the SCREEN 3.0 model and comparing 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 "worst case" pollutant:

Pollutant: styrene

TLV (ug/m3): 85,200

Maximum Hourly Emission Rate from P004, P005, P006, P007, and P008 (lbs/hr): 81.66 lbs/hour

Predicted 1-Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 1,792

MAGLC (ug/m3): 2,028 (85,200 ug/m3 divided by 42)

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 previously modeled;
  - b. changes in the composition of the materials used, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that is 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.).
2. 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 (V)(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 shows the results of the application of the "Air Toxic Policy" for the change.

#### IV. Reporting Requirements

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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>
P006 - Spray lay-up gun No. 2	OAC rule 3745-31-05(A)(3)	Styrene emissions from this emissions unit shall not exceed 22.2 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)  Volatile Organic Compound (VOC) emissions from this emissions unit shall not exceed 23.9 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)  Organic Compound (OC) emissions from this emissions unit shall not exceed 27.9 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)  Styrene emissions from this emissions unit shall not exceed 16.61 tons/yr.  VOC emissions from this emissions unit shall not exceed 19.11 tons/yr.

OC emissions from this emissions unit shall not exceed 25.11 tons/yr.

The combined styrene emissions from emissions units P005 and P006 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage.

The combined VOC emissions from emissions units P005 and P006 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage. (This limit does not include VOC emissions generated by the use of mold release.)

The combined OC emissions from emissions units P005 and P006 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage. (This limit does include OC emissions from cleanup material and mold release usage.)

The combined VOC emissions from the use of mold release from this entire facility shall not exceed 2.5 tons/yr based upon a rolling, 12-month summation of the VOC emissions.

The combined OC emissions from the use of mold release and cleanup material from this entire facility shall not exceed 8.5 tons/yr based upon a rolling, 12-month summation of the OC emissions.

OAC rule 3745-21-07(G)(9)(g)

See Operational Restrictions A.II.1 through A.II.9.

OAC rule 3745-15-07

40 CFR Part 63 Subpart WWWW  
Reinforced Plastic Composites  
Production

In accordance with OAC rule 3745-21-07(G)(9)(g), Best Available Technology (BAT) for this emissions unit, as established pursuant to OAC rule 3745-31-05, has been determined to be more stringent than, or inconsistent with, the requirements of OAC rule 3745-21-07(G).

See Part I, Term B.7.

See section I.2.a. below.

## 2. Additional Terms and Conditions

- 2.a** The permittee will be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reinforced Plastic Composites Production, 40 CFR Part 63, Subpart WWWW. U.S. EPA failed to promulgate this standard by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR Part 63, Subpart B (40 CFR Parts 63.50 through 63.56), the permittee shall submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application shall be submitted in two parts. The deadline to submit the Part I application, as specified in 40 CFR Part 63.53, was May 15, 2002.
- 2.b** If the final MACT standard is not promulgated by the deadline specified by U.S. EPA, the permittee shall submit the Part II application as specified in 40 CFR Part 63.
- 2.c** If the NESHAP is promulgated before May 15, 2004, the facility shall be subject to the rule as an existing major source with a compliance date as specified in the NESHAP. Pursuant to the Subpart, the permittee shall submit the following notifications:
- a. Within 120 days after promulgation of 40 CFR Part 63, Subpart WWWW, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report, in accordance with 40 CFR Part 63.9(b)(2):
    - i. the name and mailing address of the permittee;
    - ii. the physical location of the source if it is different from the mailing address;

- iii. identification of the relevant MACT standard and the source's compliance date;
  - iv. a brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each HAP; and
  - v. a statement confirming the facility is a major source for HAPs.
- b. Within 60 days following completion of any required compliance demonstration activity specified in 40 CFR Part 63, Subpart WWWW, the permittee shall submit a notification of compliance status that contains the following information:
- i. the methods used to determine compliance;
  - ii. the results of any performance tests, visible emission observations, continuous monitoring systems performance evaluations, and/or other monitoring procedures or methods that were conducted;
  - iii. the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;
  - iv. the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR Part 63, Subpart WWWW;
  - v. an analysis demonstrating whether the affected source is a major source or an area source;
  - vi. a description of the air pollution control equipment or method for each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and
  - vii. a statement of whether or not the permittee has complied with the requirements of 40 CFR Part 63, Subpart WWWW.

## II. Operational Restrictions

1. The maximum styrene monomer weight percent, as applied, for each resin employed in this emissions unit shall not exceed forty-four percent (44%).
2. The maximum annual combined resin usage for emissions units P005 and P006 shall not exceed 375.2 tons per year based upon a rolling, 12-month summation of the resin usage rates.

To ensure enforceability during the 12 calendar months following the issuance of this permit, the permittee shall not exceed the resin usage rate specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Tons of Resin Usage</u>
1	31.3
1-2	62.5
1-3	93.8
1-4	125.1
1-5	156.3
1-6	187.6
1-7	218.9
1-8	250.1
1-9	281.4
1-10	312.7
1-11	343.9
1-12	375.2

After the first 12 calendar months following issuance of this permit, compliance with the combined annual resin usage for emissions units P005 and P006 shall be based upon a rolling, 12-month summation of the tons of resin used.

3. The only cleanup material the permittee shall employ in this facility shall be acetone, which has a density of 6.6 lbs OC/gallon, as applied.
4. The combined OC emissions from the use of mold release and cleanup material from this entire facility shall not exceed 8.5 tons/yr based upon rolling, 12-month summation of the OC emissions.

To ensure enforceability during the 12 calendar months following the issuance of this permit, the permittee shall not exceed the OC emission rates from the use of cleanup material and mold release specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative OC Emission Rates from Cleanup Material &amp; Mold Release Usage (tons)</u>
1	0.71
1-2	1.42
1-3	2.13
1-4	2.84
1-5	3.55
1-6	4.25
1-7	4.96
1-8	5.67

1-9	6.38
1-10	7.09
1-11	7.80
1-12	8.50

After the first 12 calendar months following issuance of this permit, compliance with the annual OC emission rates from the use of cleanup material and mold release from the entire facility shall be based upon a rolling, 12-month summation of the tons of OC emissions from the use of cleanup solvent and mold release.

5. The combined VOC emissions from the use of mold release from this entire facility shall not exceed 2.5 tons/yr based upon the rolling, 12-month summation of the VOC emissions.

To ensure enforceability during the 12 calendar months following the issuance of this permit, the permittee shall not exceed the emission rates from the use of mold release specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative VOC Emission Rates from Mold Release Usage (tons)</u>
1	0.20
1-2	0.41
1-3	0.62
1-4	0.83
1-5	1.04
1-6	1.25
1-7	1.46
1-8	1.67
1-9	1.88
1-10	2.09
1-11	2.30
1-12	2.50

After the first 12 calendar months following issuance of this permit, compliance with the annual VOC emission rates from the use of mold release from the entire facility shall be based upon a rolling, 12-month summation of the tons of VOC emissions from the use of mold release.

6. The permittee shall operate and maintain the dry filtration system to control particulate emissions whenever this emissions unit is in operation.
7. When emissions unit P006 is being operated, no more than two of the following emissions units may be operated concurrently: P004, P005, P007, and P008.
8. The permittee shall utilize Non-atomized Application Equipment in this emissions unit. Non-atomized Application Equipment means the following:

- a. flow coat nozzles for gel coat application equipment;
- b. flow coat nozzle and chopper chute for resin and glass application equipment; and
- c. pressure fed roller equipment.

(For further details, see the CFA's "Controlled Spray Handbook dated 9/98".)

9. The permittee shall only employ vapor suppressant resins.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain daily records of the following information for this emissions unit:
  - a. the name and identification of each resin and cleanup material employed;
  - b. the weight fraction of styrene monomer (in percent) for each resin, as applied;
  - c. documentation that Non-atomized Application Equipment was employed; and
  - d. documentation that each resin employed was a vapor suppressant resin.
2. The permittee shall collect and record the following information each month for emissions units P005 and P006 as a group:
  - a. the combined resin usage rate;
  - b. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the combined resin usage; and
  - c. during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative combined resin usage rate for each calendar month.
3. The permittee shall collect and record the following information each month for the entire facility:
  - a. the company identification for each cleanup material employed;
  - b. the number of pounds of each cleanup material employed;
  - c. the OC content of each cleanup material employed, in pounds per gallon;
  - d. the total OC emission rate for each cleanup material employed, in pounds or tons;

- e. the total OC emission rate for all cleanup materials employed, (summation of d), in tons; and
- f. the annual, year-to-date OC emission rate for all cleanup materials employed, (summation of "e" for each calendar month to date from January to December), in tons.

The permittee may calculate OC emissions from cleanup materials in accordance with the following formula if waste cleanup materials are sent off site for disposal/reclamation:

OC emissions = (total gallons of cleanup material used) x (solvent density of cleanup material) - (total gallons of cleanup material sent off site [minus solids]) x (solvent density of cleanup material).

- 4. The permittee shall collect and record the following information each month for the entire facility:
  - a. the company identification for each mold release employed;
  - b. the number of gallons of each mold release employed;
  - c. the OC and VOC content of each mold release employed, in pounds per gallon;
  - d. the total OC and VOC emission rate for each mold release employed, (b x c), in pounds or tons;
  - e. the total OC and VOC emission rate for all mold release employed, (summation of d), in tons;
  - f. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the OC emission rates from cleanup material and mold release usage;
  - g. during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative OC emission rates from cleanup material and mold release usage for each calendar month;
  - h. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the VOC emission rates from mold release usage; and
  - i. during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative VOC emission rates from mold release usage rate for each calendar month.

5. The permittee shall maintain daily records that document any time periods when the dry filtration system was not in service when the emissions unit was in operation.
6. Records shall be maintained when more than two of the following emissions units are being operated with P006 concurrently: P004, P005, P007, P008.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify the number of pounds of cleanup material employed that was not acetone.
2. The permittee shall submit deviation (excursion) reports which identify the number of pounds of noncomplying resin (i.e., for weight fraction of styrene monomer) employed.
3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month resin combined usage limitation of 375.2 tons/yr for emissions units P005 and P006, and for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative combined resin usage.
4. The permittee shall notify the Canton local air agency in writing of any daily record showing that the dry filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Canton local air agency within 30 days after the event occurs.
5. The permittee shall submit deviation (excursion) reports which identify any times when emissions unit P006 was operating and more than two of the following emissions units were also operating concurrently: P004, P005, P007, and P008.
6. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month facility-wide VOC emissions limitation of 2.5 tons/yr from the usage of mold release and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative facility-wide VOC emissions limitation from the use of mold release.
7. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month facility-wide OC emissions limitation of 8.5 tons/yr from the usage of mold release and cleanup material and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative facility-wide OC emissions limitation from the use of mold release and cleanup material.
8. The permittee shall submit deviation (excursion) reports which identify any use of spray equipment by this emissions unit that did not meet the definition of Non-atomized Application Equipment found in section A.II.8.

9. The permittee shall submit deviation (excursion) reports which identify any use of resins that did not meet the definition of vapor suppressant resin.
10. Except as otherwise specified, the above reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1)(c).

## V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

- a. Emissions Limitation

Styrene emissions from this emissions unit shall not exceed 22.2 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)

### Applicable Compliance Method

The hourly emissions limitation represents the potential to emit for this emissions unit, i.e., the maximum usage rate of 500 lbs of resin/hr and the maximum monomer weight percent allowed under the restrictions of this permit, calculated using the following equation:

Using the emissions factor (EF) from Unified Emission Factors for open Molding of Composites - Mechanical, Non-atomized with vapor suppressant resin (VSR) and 45% styrene content equates to an emission factor of 105 lbs styrene/ton of resin.

Mechanical Non-Atomized Controlled Spray Emission Factor x (1 - (0.45 x specific VSR reduction factor)) = EF

VSR reduction factor = 0.3475 per Ashland's testing

500 lbs resin/hr = maximum production capacity

$EF = 105 \times [1 - (0.45 \times 0.3475)]$

EF = 88.58 lbs styrene emitted/ton of resin used

500 lbs resin/hr x 1 ton/2000 lbs x 88.58 lbs styrene/ton of resin = 22.15 lbs styrene/hr  
Therefore, no additional requirements are necessary to show compliance with this limit.

- b. Emissions Limitation

Volatile Organic Compound (VOC) emissions from this emissions unit shall not exceed 23.9 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)

**Applicable Compliance Method**

The hourly emissions limitation represents the potential to emit for this emissions unit, i.e., the maximum usage rate of 500 lbs of resin/hr and the maximum monomer weight percent allowed under the restrictions of this permit, calculated using the following equation:

Using the emissions factor (EF) from Unified Emission Factors for Open Molding of Composites - Mechanical, Non-atomized with vapor suppressant resin (VSR).

45% styrene content

VSR reduction factor = 0.3475 per Ashland's testing

500 lbs resin/hr = maximum production capacity

$$EF = 105 \times [1 - (0.45)(0.3475)]$$

$$EF = 88.58 \text{ lbs styrene emitted/ton of resin produced}$$

$$500 \text{ lbs resin/hr} \times 1 \text{ ton}/2000 \text{ lbs} \times 88.58 \text{ lbs styrene/ton of resin} = 22.15 \text{ lbs styrene/hr}$$

Maximum average mold release VOC emissions are 1.7 lbs/hr.

$$22.15 \text{ VOC lbs/hr} + 1.7 \text{ lbs VOC/hr} = 23.85 \text{ lbs VOC/hr}$$

Therefore, no additional requirements are necessary to show compliance with this limit.

c. **Emissions Limitation**

Organic Compound (OC) emissions from this emissions unit shall not exceed 27.9 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)

**Applicable Compliance Method**

$$500 \text{ lbs resin/hr} \times 1 \text{ ton}/2000 \text{ lbs} \times 88.58 \text{ lbs styrene/ton of resin} = 22.15 \text{ lbs styrene/hr}$$

Maximum average mold release usage results in OC emissions of 1.7 lbs/hr.

Maximum cleanup material usage results in OC emissions of 4.0 lbs/hr.

$$22.15 \text{ OC lbs/hr} + 1.7 \text{ lbs OC/hr} + 4 \text{ lbs OC/hr} = 27.85 \text{ lbs OC/hr}$$

Therefore, no additional requirements are necessary to show compliance with this limit.

d. **Emissions Limitation**

The styrene emissions from this emissions unit shall not exceed 16.61 tons/yr.

**Applicable Compliance Method**

The combined styrene emissions limit for emissions units P005 and P006 is 16.61 tons/yr.

e. Emissions Limitation

The VOC emissions from this emissions unit shall not exceed 19.11 tons/yr.

Applicable Compliance Method

The combined VOC/styrene emissions limit for emissions units P005 and P006 is 16.61 tons/yr.

The facility-wide VOC emissions limit from the use of mold release is 2.5 tons/yr.

$$16.61 \text{ tons VOC/yr} + 2.5 \text{ tons VOC/yr} = 19.11 \text{ tons VOC/yr}$$

f. Emissions Limitation

The OC emissions from this emissions unit shall not exceed 25.11 tons/yr.

Applicable Compliance Method

The combined OC emissions limit for emissions units P005 and P006 is 16.61 tons/yr.

The facility-wide OC emissions limit from the use of mold release is 2.5 tons/yr.

The facility-wide OC emissions limit from the use of cleanup material is 6 tons/yr.

$$16.61 \text{ tons OC/yr} + 2.5 \text{ tons OC/yr} + 6 \text{ tons OC/yr} = 25.11 \text{ tons OC/yr}$$

g. Emissions Limitation

The combined styrene emissions from emissions units P005 and P006 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage.

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping of resin usage found in A.III.2.

h. Emissions Limitation

The combined VOC emissions from emissions units P005 and P006 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage. (This limit does not include VOC emissions generated by the use of mold release.)

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping of resin usage found in A.III.2.

i. Emissions Limitation

The combined OC emissions from emissions units P005 and P006 shall not exceed 16.61 tons /yr. To achieve this limit, the maximum amount of resin usage shall not exceed

375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage. (This limit does not include OC emissions generated by the use of mold release and cleanup material.)

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping of resin usage found in A.III.2.

j. Emissions Limitation

The combined VOC emissions from the use of mold release from this entire facility shall not exceed 2.5 tons/yr based upon a rolling, 12-month summation of the VOC emissions.

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping found in A.III.4.

k. Emissions Limitation

The combined OC emissions from the use of mold release and cleanup material from this entire facility shall not exceed 8.5 tons/yr based upon a rolling, 12-month summation of the OC emissions.

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and record keeping found in A.III.3 and A.III.4.

2. Compliance with the operational limitations of this permit shall be determined in accordance with the following methods:

a. Operational Limitation

The maximum amount of combined resin usage for emissions units P005 and P006 shall not exceed 375 tons/yr, based upon a rolling, 12-month summation of the resin usage.

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of resin usage as specified in section A.III.2.

b. Operational Limitation

The maximum styrene monomer weight percent, as applied, for the resins employed in this emissions unit shall not exceed forty-four percent (44%).

Applicable Compliance Method

The percent styrene monomer content shall be determined by USEPA Reference Method 24 or SCAQMD Method 312. When Method 24 is used, the weight percent monomer shall be taken to be the weight percent volatiles of the uncatalyzed resin. An alternative method may be substituted if agreed to in writing by USEPA. Compliance shall be

achieved based on the monitoring and recordkeeping of resin usage as specified in section A.III.1.

c. Operational Limitation

The only cleanup material the permittee shall employ in this facility shall be acetone, which has a density of 6.6 lbs OC/gallon, as applied.

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of acetone usage as specified in section A.III.1.

d. Operational Limitation

The permittee shall operate the dry filtration system whenever this emissions unit is in operation.

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping specified in section A.III.5.

e. Operational Limitation

When emissions unit P006 is being operated, no more than two of the following emissions units may be operated concurrently: P004, P005, P007, and P008.

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of emissions units' operating schedules as specified in section A.III.6.

f. Operational Limitation

The permittee shall utilize Non-atomized Application Equipment in this emissions unit. Non-atomized Application Equipment means the following:

- i. flow coat nozzles for gel coat application equipment;
- ii. flow coat nozzle and chopper chute for resin and glass application equipment; and
- iii. pressure fed roller equipment.

(For further details, see the CFA's "Controlled Spray Handbook dated 9/98".)

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of the use of Non-atomized Application Equipment as specified in section A.III.1.c.

- g. **Operational Limitation**  
The permittee shall only employ vapor suppressant resins.

**Applicable Compliance Method**

Compliance shall be achieved based on the monitoring and recordkeeping of resin usage as specified in section A.III.1.d.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. 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>
P006 - Spray lay-up gun No. 2	Air Toxic Policy	See Term B.III.1.

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for these five emissions units (P004, P005, P006, P007, and P008) for the emissions of styrene was evaluated based on the actual 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. Using the SCREEN 3.0 model and comparing 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 "worst case" pollutant:

Pollutant: styrene

TLV (ug/m3): 85,200

Maximum Hourly Emission Rate from P004, P005, P006, P007, and P008(lbs/hr): 81.66 lbs/hour

Predicted 1-Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 1,792

MAGLC (ug/m3): 2,028 (85,200 ug/m3 divided by 42)

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 previously modeled;
  - b. changes in the composition of the materials used, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that is 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.).
2. 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 (V)(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 shows the results of the application of the "Air Toxic Policy" for the change.

#### IV. Reporting Requirements

None



**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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>
P007 - Spray lay-up gun No. 3	OAC rule 3745-31-05(A)(3)	<p>Styrene emissions from this emissions unit shall not exceed 22.2 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)</p> <p>Volatile Organic Compound (VOC) emissions from this emissions unit shall not exceed 23.9 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)</p> <p>Organic Compound (OC) emissions from this emissions unit shall not exceed 27.9 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)</p> <p>Styrene emissions from this emissions unit shall not exceed 16.61 tons/yr.</p> <p>VOC emissions from this emissions unit shall not exceed 19.11 tons/yr.</p>

OC emissions from this emissions unit shall not exceed 25.11 tons/yr.

The combined styrene emissions from emissions units P007 and P008 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage.

The combined VOC emissions from emissions units P007 and P008 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage. (This limit does not include VOC emissions generated by the use of mold release.)

The combined OC emissions from emissions units P007 and P008 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage. (This limit does include OC emissions from cleanup material and mold release usage.)

The combined VOC emissions from the use of mold release from this entire facility shall not exceed 2.5 tons/yr based upon a rolling, 12-month summation of the VOC emissions.

The combined OC emissions from the use of mold release and cleanup material from this entire facility shall not exceed 8.5 tons/yr based upon a rolling, 12-month summation of the OC emissions.

OAC rule 3745-21-07(G)(9)(g)

See Operational Restrictions A.II.1 through A.II.9.



- iii. identification of the relevant MACT standard and the source's compliance date;
  - iv. a brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each HAP; and
  - v. a statement confirming the facility is a major source for HAPs.
- b. Within 60 days following completion of any required compliance demonstration activity specified in 40 CFR Part 63, Subpart WWWW, the permittee shall submit a notification of compliance status that contains the following information:
- i. the methods used to determine compliance;
  - ii. the results of any performance tests, visible emission observations, continuous monitoring systems performance evaluations, and/or other monitoring procedures or methods that were conducted;
  - iii. the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;
  - iv. the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR Part 63, Subpart WWWW;
  - v. an analysis demonstrating whether the affected source is a major source or an area source;
  - vi. a description of the air pollution control equipment or method for each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and
  - vii. a statement of whether or not the permittee has complied with the requirements of 40 CFR Part 63, Subpart WWWW.

## II. Operational Restrictions

1. The maximum styrene monomer weight percent, as applied, for each resin employed in this emissions unit shall not exceed forty-four percent (44%).
2. The maximum annual combined resin usage for emissions units P007 and P008 shall not exceed 375.2 tons per year based upon a rolling, 12-month summation of the resin usage rates.

To ensure enforceability during the 12 calendar months following the issuance of this permit, the permittee shall not exceed the resin usage rate specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Tons of Resin Usage</u>
1	31.3
1-2	62.5
1-3	93.8
1-4	125.1
1-5	156.3
1-6	187.6
1-7	218.9
1-8	250.1
1-9	281.4
1-10	312.7
1-11	343.9
1-12	375.2

After the first 12 calendar months following issuance of this permit, compliance with the combined annual resin usage for emissions units P007 and P008 shall be based upon a rolling, 12-month summation of the tons of resin used.

- The only cleanup material the permittee shall employ in this facility shall be acetone, which has a density of 6.6 lbs OC/gallon, as applied.
- The combined OC emissions from the use of mold release and cleanup material from this entire facility shall not exceed 8.5 tons/yr based upon rolling, 12-month summation of the OC emissions.

To ensure enforceability during the 12 calendar months following the issuance of this permit, the permittee shall not exceed the OC emission rates from the use of cleanup material and mold release specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative OC Emission Rates from Cleanup Material &amp; Mold Release Usage (tons)</u>
1	0.71
1-2	1.42
1-3	2.13
1-4	2.84
1-5	3.55
1-6	4.25
1-7	4.96
1-8	5.67

1-9	6.38
1-10	7.09
1-11	7.80
1-12	8.50

After the first 12 calendar months following issuance of this permit, compliance with the annual OC emission rates from the use of cleanup material and mold release from the entire facility shall be based upon a rolling, 12-month summation of the tons of OC emissions from the use of cleanup solvent and mold release.

5. The combined VOC emissions from the use of mold release from this entire facility shall not exceed 2.5 tons/yr based upon the rolling, 12-month summation of the VOC emissions.

To ensure enforceability during the 12 calendar months following the issuance of this permit, the permittee shall not exceed the emission rates from the use of mold release specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative VOC Emission Rates from Mold Release Usage (tons)</u>
1	0.20
1-2	0.41
1-3	0.62
1-4	0.83
1-5	1.04
1-6	1.25
1-7	1.46
1-8	1.67
1-9	1.88
1-10	2.09
1-11	2.30
1-12	2.50

After the first 12 calendar months following issuance of this permit, compliance with the annual VOC emission rates from the use of mold release from the entire facility shall be based upon a rolling, 12-month summation of the tons of VOC emissions from the use of mold release.

6. The permittee shall operate and maintain the dry filtration system to control particulate emissions whenever this emissions unit is in operation.
7. When emissions unit P007 is being operated, no more than two of the following emissions units may be operated concurrently: P004, P005, P006, and P008.
8. The permittee shall utilize Non-atomized Application Equipment in this emissions unit. Non-atomized Application Equipment means the following:

- a. flow coat nozzles for gel coat application equipment;
- b. flow coat nozzle and chopper chute for resin and glass application equipment; and
- c. pressure fed roller equipment.

(For further details, see the CFA's "Controlled Spray Handbook dated 9/98".)

9. The permittee shall only employ vapor suppressant resins.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain daily records of the following information for this emissions unit:
  - a. the name and identification of each resin and cleanup material employed;
  - b. the weight fraction of styrene monomer (in percent) for each resin, as applied;
  - c. documentation that Non-atomized Application Equipment was employed; and
  - d. documentation that each resin employed was a vapor suppressant resin.
2. The permittee shall collect and record the following information each month for emissions units P007 and P008 as a group:
  - a. the combined resin usage rate;
  - b. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the combined resin usage; and
  - c. during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative combined resin usage rate for each calendar month.
3. The permittee shall collect and record the following information each month for the entire facility:
  - a. the company identification for each cleanup material employed;
  - b. the number of pounds of each cleanup material employed;
  - c. the OC content of each cleanup material employed, in pounds per gallon;
  - d. the total OC emission rate for each cleanup material employed, in pounds or tons;

- e. the total OC emission rate for all cleanup materials employed, (summation of d), in tons; and
- f. the annual, year-to-date OC emission rate for all cleanup materials employed, (summation of "e" for each calendar month to date from January to December), in tons.

The permittee may calculate OC emissions from cleanup materials in accordance with the following formula if waste cleanup materials are sent off site for disposal/reclamation:

OC emissions = (total gallons of cleanup material used) x (solvent density of cleanup material) - (total gallons of cleanup material sent off site [minus solids]) x (solvent density of cleanup material).

- 4. The permittee shall collect and record the following information each month for the entire facility:
  - a. the company identification for each mold release employed;
  - b. the number of gallons of each mold release employed;
  - c. the OC and VOC content of each mold release employed, in pounds per gallon;
  - d. the total OC and VOC emission rate for each mold release employed, (b x c), in pounds or tons;
  - e. the total OC and VOC emission rate for all mold release employed, (summation of d), in tons;
  - f. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the OC emission rates from cleanup material and mold release usage;
  - g. during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative OC emission rates from cleanup material and mold release usage for each calendar month;
  - h. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the VOC emission rates from mold release usage; and
  - i. during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative VOC emission rates from mold release usage rate for each calendar month.

5. The permittee shall maintain daily records that document any time periods when the dry filtration system was not in service when the emissions unit was in operation.
6. Records shall be maintained when more than two of the following emission units are being operated with P007 concurrently: P004, P005, P006, P008.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify the number of pounds of cleanup material employed that was not acetone.
2. The permittee shall submit deviation (excursion) reports which identify the number of pounds of noncomplying resin (i.e., for weight fraction of styrene monomer) employed.
3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month resin combined usage limitation of 375.2 tons/yr for emissions units P007 and P008, and for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative combined resin usage.
4. The permittee shall notify the Canton local air agency in writing of any daily record showing that the dry filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Canton local air agency within 30 days after the event occurs.
5. The permittee shall submit deviation (excursion) reports which identify any times when emissions unit P007 was operating and more than two of the following emissions units were also operating concurrently: P004, P005, P006, and P008.
6. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month facility-wide VOC emissions limitation of 2.5 tons/yr from the usage of mold release and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative facility-wide VOC emissions limitation from the use of mold release.
7. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month facility-wide OC emissions limitation of 8.5 tons/yr from the usage of mold release and cleanup material and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative facility-wide OC emissions limitation from the use of mold release and cleanup material.
8. The permittee shall submit deviation (excursion) reports which identify any use of spray equipment by this emissions unit that did not meet the definition of Non-atomized Application Equipment found in section A.II.8.

9. The permittee shall submit deviation (excursion) reports which identify any use of resins that did not meet the definition of vapor suppressant resin.
10. Except as otherwise specified, the above reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1)(c).

## V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

- a. Emissions Limitation

Styrene emissions from this emissions unit shall not exceed 22.2 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)

### Applicable Compliance Method

The hourly emissions limitation represents the potential to emit for this emissions unit, i.e., the maximum usage rate of 500 lbs of resin/hr and the maximum monomer weight percent allowed under the restrictions of this permit, calculated using the following equation:

Using the emissions factor (EF) from Unified Emission Factors for open Molding of Composites - Mechanical, Non-atomized with vapor suppressant resin (VSR) and 45% styrene content equates to an emission factor of 105 lbs styrene/ton of resin.

Mechanical Non-Atomized Controlled Spray Emission Factor x (1 - (0.45 x specific VSR reduction factor)) = EF

VSR reduction factor = 0.3475 per Ashland's testing

500 lbs resin/hr = maximum production capacity

$EF = 105 \times [1 - (0.45 \times 0.3475)]$

EF = 88.58 lbs styrene emitted/ton of resin used

500 lbs resin/hr x 1 ton/2000 lbs x 88.58 lbs styrene/ton of resin = 22.15 lbs styrene/hr  
Therefore, no additional requirements are necessary to show compliance with this limit.

- b. Emissions Limitation

Volatile Organic Compound (VOC) emissions from this emissions unit shall not exceed 23.9 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)

**Applicable Compliance Method**

The hourly emissions limitation represents the potential to emit for this emissions unit, i.e., the maximum usage rate of 500 lbs of resin/hr and the maximum monomer weight percent allowed under the restrictions of this permit, calculated using the following equation:

Using the emissions factor (EF) from Unified Emission Factors for Open Molding of Composites - Mechanical, Non-atomized with vapor suppressant resin (VSR).

45% styrene content

VSR reduction factor = 0.3475 per Ashland's testing

500 lbs resin/hr = maximum production capacity

$$EF = 105 \times [1 - (0.45)(0.3475)]$$

$$EF = 88.58 \text{ lbs styrene emitted/ton of resin produced}$$

$$500 \text{ lbs resin/hr} \times 1 \text{ ton}/2000 \text{ lbs} \times 88.58 \text{ lbs styrene/ton of resin} = 22.15 \text{ lbs styrene/hr}$$

Maximum average mold release VOC emissions are 1.7 lbs/hr.

$$22.15 \text{ VOC lbs/hr} + 1.7 \text{ lbs VOC/hr} = 23.85 \text{ lbs VOC/hr}$$

Therefore, no additional requirements are necessary to show compliance with this limit.

c. **Emissions Limitation**

Organic Compound (OC) emissions from this emissions unit shall not exceed 27.9 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)

**Applicable Compliance Method**

$$500 \text{ lbs resin/hr} \times 1 \text{ ton}/2000 \text{ lbs} \times 88.58 \text{ lbs styrene/ton of resin} = 22.15 \text{ lbs styrene/hr}$$

Maximum average mold release usage results in OC emissions of 1.7 lbs/hr.

Maximum cleanup material usage results in OC emissions of 4.0 lbs/hr.

$$22.15 \text{ OC lbs/hr} + 1.7 \text{ lbs OC/hr} + 4 \text{ lbs OC/hr} = 27.85 \text{ lbs OC/hr}$$

Therefore, no additional requirements are necessary to show compliance with this limit.

d. **Emissions Limitation**

The styrene emissions from this emissions unit shall not exceed 16.61 tons/yr.

**Applicable Compliance Method**

The combined styrene emissions limit for emissions units P007 and P008 is 16.61 tons/yr.

e. Emissions Limitation

The VOC emissions from this emissions unit shall not exceed 19.11 tons/yr.

Applicable Compliance Method

The combined VOC/styrene emissions limit for emissions units P007 and P008 is 16.61 tons/yr.

The facility-wide VOC emissions limit from the use of mold release is 2.5 tons/yr.

$$16.61 \text{ tons VOC/yr} + 2.5 \text{ tons VOC/yr} = 19.11 \text{ tons VOC/yr}$$

f. Emissions Limitation

The OC emissions from this emissions unit shall not exceed 25.11 tons/yr.

Applicable Compliance Method

The combined OC emissions limit for emissions units P007 and P008 is 16.61 tons/yr.

The facility-wide OC emissions limit from the use of mold release is 2.5 tons/yr.

The facility-wide OC emissions limit from the use of cleanup material is 6 tons/yr.

$$16.61 \text{ tons OC/yr} + 2.5 \text{ tons OC/yr} + 6 \text{ tons OC/yr} = 25.11 \text{ tons OC/yr}$$

g. Emissions Limitation

The combined styrene emissions from emissions units P007 and P008 shall not exceed 16.61 tons /yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage.

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping of resin usage found in A.III.2.

h. Emissions Limitation

The combined VOC emissions from emissions units P007 and P008 shall not exceed 16.61 tons /yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage. (This limit does not include VOC emissions generated by the use of mold release.)

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping of resin usage found in A.III.2.

i. Emissions Limitation

The combined OC emissions from emissions units P007 and P008 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage. (This limit does not include OC emissions generated by the use of mold release and cleanup material.)

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping of resin usage found in A.III.2.

j. Emissions Limitation

The combined VOC emissions from the use of mold release from this entire facility shall not exceed 2.5 tons/yr based upon a rolling, 12-month summation of the VOC emissions.

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping found in A.III.3 and A.III.4.

k. Emissions Limitation

The combined OC emissions from the use of mold release and cleanup material from this entire facility shall not exceed 8.5 tons/yr based upon a rolling, 12-month summation of the OC emissions.

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping found in A.III.3 and A.III.4.

2. Compliance with the operational limitations of this permit shall be determined in accordance with the following methods:

a. Operational Limitation

The maximum amount of combined resin usage for emissions units P007 and P008 shall not exceed 375 tons/yr, based upon a rolling, 12-month summation of the resin usage.

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of resin usage as specified in section A.III.2.

b. Operational Limitation

The maximum styrene monomer weight percent, as applied, for the resins employed in this emissions unit shall not exceed forty-four percent (44%).



Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of the use of Non-atomized Application Equipment as specified in section A.III.1.c.

g.

Operational Limitation

The permittee shall only employ vapor suppressant resins.

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of resin usage as specified in section A.III.1.d.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. 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>
P007 - Spray lay-up gun No. 3	Air Toxic Policy	See Term B.III.1.

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for these five emissions units (P004, P005, P006, P007, and P008) for the emissions of styrene was evaluated based on the actual 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. Using the SCREEN 3.0 model and comparing 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 "worst case" pollutant:

Pollutant: styrene

TLV (ug/m3): 85,200

Maximum Hourly Emission Rate from P004, P005, P006, P007, and P008 (lbs/hr): 81.66 lbs/hour

Predicted 1-Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 1,792



**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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>
P008 - Spray lay-up gun No. 4	OAC rule 3745-31-03(A)(3)	Styrene emissions from this emissions unit shall not exceed 22.2 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)
		Volatile Organic Compound (VOC) emissions from this emissions unit shall not exceed 23.9 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)
		Organic Compound (OC) emissions from this emissions unit shall not exceed 27.9 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)
		Styrene emissions from this emissions unit shall not exceed 16.61 tons/yr.
		VOC emissions from this emissions unit shall not exceed 19.11 tons/yr.

OC emissions from this emissions unit shall not exceed 25.11 tons/yr.

The combined styrene emissions from emissions units P007 and P008 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage.

The combined VOC emissions from emissions units P007 and P008 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage. (This limit does not include VOC emissions generated by the use of mold release.)

The combined OC emissions from emissions units P007 and P008 shall not exceed 16.61 tons/yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage. (This limit does include OC emissions from cleanup material and mold release usage.)

The combined VOC emissions from the use of mold release from this entire facility shall not exceed 2.5 tons/yr based upon a rolling, 12-month summation of the VOC emissions.

The combined OC emissions from the use of mold release and cleanup material from this entire facility shall not exceed 8.5 tons/yr based upon a rolling, 12-month summation of the OC emissions.

OAC rule 3745-21-07(G)(9)(g)

See Operational Restrictions A.II.1 through A.II.9.

OAC rule 3745-15-07

40 CFR Part 63 Subpart WWWW  
Reinforced Plastic Composites  
Production

In accordance with OAC rule 3745-21-07(G)(9)(g), Best Available Technology (BAT) for this emissions unit, as established pursuant to OAC rule 3745-31-05, has been determined to be more stringent than, or inconsistent with, the requirements of OAC rule 3745-21-07(G).

See Part I, Term B.7.

See section I.2.a. below.

## 2. Additional Terms and Conditions

- 2.a** The permittee will be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reinforced Plastic Composites Production, 40 CFR Part 63, Subpart WWWW. U.S. EPA failed to promulgate this standard by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR Part 63, Subpart B (40 CFR Parts 63.50 through 63.56), the permittee shall submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application shall be submitted in two parts. The deadline to submit the Part I application, as specified in 40 CFR Part 63.53, was May 15, 2002.
- 2.b** If the final MACT standard is not promulgated by the deadline specified by U.S. EPA, the permittee shall submit the Part II application as specified in 40 CFR Part 63.
- 2.c** If the NESHAP is promulgated before May 15, 2004, the facility shall be subject to the rule as an existing major source with a compliance date as specified in the NESHAP. Pursuant to the Subpart, the permittee shall submit the following notifications:
- a. Within 120 days after promulgation of 40 CFR Part 63, Subpart WWWW, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report, in accordance with 40 CFR Part 63.9(b)(2):
    - i. the name and mailing address of the permittee;
    - ii. the physical location of the source if it is different from the mailing address;

- iii. identification of the relevant MACT standard and the source's compliance date;
  - iv. a brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each HAP; and
  - v. a statement confirming the facility is a major source for HAPs.
- b. Within 60 days following completion of any required compliance demonstration activity specified in 40 CFR Part 63, Subpart WWWW, the permittee shall submit a notification of compliance status that contains the following information:
- i. the methods used to determine compliance;
  - ii. the results of any performance tests, visible emission observations, continuous monitoring systems performance evaluations, and/or other monitoring procedures or methods that were conducted;
  - iii. the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;
  - iv. the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR Part 63, Subpart WWWW;
  - v. an analysis demonstrating whether the affected source is a major source or an area source;
  - vi. a description of the air pollution control equipment or method for each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and
  - vii. a statement of whether or not the permittee has complied with the requirements of 40 CFR Part 63, Subpart WWWW.

## II. Operational Restrictions

1. The maximum styrene monomer weight percent, as applied, for each resin employed in this emissions unit shall not exceed forty-four percent (44%).
2. The maximum annual combined resin usage for emissions units P007 and P008 shall not exceed 375.2 tons per year based upon a rolling, 12-month summation of the resin usage rates.

To ensure enforceability during the 12 calendar months following the issuance of this permit, the permittee shall not exceed the resin usage rate specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Tons of Resin Usage</u>
1	31.3
1-2	62.5
1-3	93.8
1-4	125.1
1-5	156.3
1-6	187.6
1-7	218.9
1-8	250.1
1-9	281.4
1-10	312.7
1-11	343.9
1-12	375.2

After the first 12 calendar months following issuance of this permit, compliance with the combined annual resin usage for emissions units P007 and P008 shall be based upon a rolling, 12-month summation of the tons of resin used.

- The only cleanup material the permittee shall employ in this facility shall be acetone, which has a density of 6.6 lbs OC/gallon, as applied.
- The combined OC emissions from the use of mold release and cleanup material from this entire facility shall not exceed 8.5 tons/yr based upon rolling, 12-month summation of the OC emissions.

To ensure enforceability during the 12 calendar months following the issuance of this permit, the permittee shall not exceed the OC emission rates from the use of cleanup material and mold release specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative OC Emission Rates from Cleanup Material &amp; Mold Release Usage (tons)</u>
1	0.71
1-2	1.42
1-3	2.13
1-4	2.84
1-5	3.55
1-6	4.25
1-7	4.96
1-8	5.67

1-9	6.38
1-10	7.09
1-11	7.80
1-12	8.50

After the first 12 calendar months following issuance of this permit, compliance with the annual OC emission rates from the use of cleanup material and mold release from the entire facility shall be based upon a rolling, 12-month summation of the tons of OC emissions from the use of cleanup solvent and mold release.

- The combined VOC emissions from the use of mold release from this entire facility shall not exceed 2.5 tons/yr based upon the rolling, 12-month summation of the VOC emissions.

To ensure enforceability during the 12 calendar months following the issuance of this permit, the permittee shall not exceed the emission rates from the use of mold release specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative VOC Emission Rates from Mold Release Usage (tons)</u>
1	0.20
1-2	0.41
1-3	0.62
1-4	0.83
1-5	1.04
1-6	1.25
1-7	1.46
1-8	1.67
1-9	1.88
1-10	2.09
1-11	2.30
1-12	2.50

After the first 12 calendar months following issuance of this permit, compliance with the annual VOC emission rates from the use of mold release from the entire facility shall be based upon a rolling, 12-month summation of the tons of VOC emissions from the use of mold release.

- The permittee shall operate and maintain the dry filtration system to control particulate emissions whenever this emissions unit is in operation.
- When emissions unit P008 is being operated, no more than two of the following emissions units may be operated concurrently: P004, P005, P006, and P007.
- The permittee shall utilize Non-atomized Application Equipment in this emissions unit. Non-atomized Application Equipment means the following:



- e. the total OC emission rate for all cleanup materials employed, (summation of d), in tons; and
- f. the annual, year-to-date OC emission rate for all cleanup materials employed, (summation of "e" for each calendar month to date from January to December), in tons.

The permittee may calculate OC emissions from cleanup materials in accordance with the following formula if waste cleanup materials are sent off site for disposal/reclamation:

OC emissions = (total gallons of cleanup material used) x (solvent density of cleanup material) - (total gallons of cleanup material sent off site [minus solids]) x (solvent density of cleanup material).

- 4. The permittee shall collect and record the following information each month for the entire facility:
  - a. the company identification for each mold release employed;
  - b. the number of gallons of each mold release employed;
  - c. the OC and VOC content of each mold release employed, in pounds per gallon;
  - d. the total OC and VOC emission rate for each mold release employed, (b x c), in pounds or tons;
  - e. the total OC and VOC emission rate for all mold release employed, (summation of d), in tons;
  - f. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the OC emission rates from cleanup material and mold release usage;
  - g. during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative OC emission rates from cleanup material and mold release usage for each calendar month;
  - h. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the VOC emission rates from mold release usage; and
  - i. during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative VOC emission rates from mold release usage rate for each calendar month.

5. The permittee shall maintain daily records that document any time periods when the dry filtration system was not in service when the emissions unit was in operation.
6. Records shall be maintained when more than two of the following emissions units are being operated with P008 concurrently: P004, P005, P006, P007.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify the number of pounds of cleanup material employed that was not acetone.
2. The permittee shall submit deviation (excursion) reports which identify the number of pounds of noncomplying resin (i.e., for weight fraction of styrene monomer) employed.
3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month resin combined usage limitation of 375.2 tons/yr for emissions units P007 and P008, and for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative combined resin usage.
4. The permittee shall notify the Canton local air agency in writing of any daily record showing that the dry filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Canton local air agency within 30 days after the event occurs.
5. The permittee shall submit deviation (excursion) reports which identify any times when emissions unit P008 was operating and more than two of the following emissions units were also operating concurrently: P004, P005, P006, and P007.
6. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month facility-wide VOC emissions limitation of 2.5 tons/yr from the usage of mold release and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative facility-wide VOC emissions limitation from the use of mold release.
7. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month facility-wide OC emissions limitation of 8.5 tons/yr from the usage of mold release and cleanup material and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative facility-wide OC emissions limitation from the use of mold release and cleanup material.
8. The permittee shall submit deviation (excursion) reports which identify any use of spray equipment by this emissions unit that did not meet the definition of Non-atomized Application Equipment found in section A.II.8.

9. The permittee shall submit deviation (excursion) reports which identify any use of resins that did not meet the definition of vapor suppressant resin.
10. Except as otherwise specified, the above reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1)(c).

## V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

- a. Emissions Limitation

Styrene emissions from this emissions unit shall not exceed 22.2 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)

### Applicable Compliance Method

The hourly emissions limitation represents the potential to emit for this emissions unit, i.e., the maximum usage rate of 500 lbs of resin/hr and the maximum monomer weight percent allowed under the restrictions of this permit, calculated using the following equation:

Using the emissions factor (EF) from Unified Emission Factors for open Molding of Composites - Mechanical, Non-atomized with vapor suppressant resin (VSR) and 45% styrene content equates to an emission factor of 105 lbs styrene/ton of resin.

Mechanical Non-Atomized Controlled Spray Emission Factor x (1 - (0.45 x specific VSR reduction factor)) = EF

VSR reduction factor = 0.3475 per Ashland's testing

500 lbs resin/hr = maximum production capacity

$EF = 105 \times [1 - (0.45 \times 0.3475)]$

EF = 88.58 lbs styrene emitted/ton of resin used

500 lbs resin/hr x 1 ton/2000 lbs x 88.58 lbs styrene/ton of resin = 22.15 lbs styrene/hr  
Therefore, no additional requirements are necessary to show compliance with this limit.

- b. Emissions Limitation

Volatile Organic Compound (VOC) emissions from this emissions unit shall not exceed 23.9 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)

Applicable Compliance Method

The hourly emissions limitation represents the potential to emit for this emissions unit, i.e., the maximum usage rate of 500 lbs of resin/hr and the maximum monomer weight percent allowed under the restrictions of this permit, calculated using the following equation:

Using the emissions factor (EF) from Unified Emission Factors for Open Molding of Composites - Mechanical, Non-atomized with vapor suppressant resin (VSR).

45% styrene content

VSR reduction factor = 0.3475 per Ashland's testing

500 lbs resin/hr = maximum production capacity

$$EF = 105 \times [1 - (0.45)(0.3475)]$$

$$EF = 88.58 \text{ lbs styrene emitted/ton of resin produced}$$

$$500 \text{ lbs resin/hr} \times 1 \text{ ton}/2000 \text{ lbs} \times 88.58 \text{ lbs styrene/ton of resin} = 22.15 \text{ lbs styrene/hr}$$

Maximum average mold release VOC emissions are 1.7 lbs/hr.

$$22.15 \text{ VOC lbs/hr} + 1.7 \text{ lbs VOC/hr} = 23.85 \text{ lbs VOC/hr}$$

Therefore, no additional requirements are necessary to show compliance with this limit.

c. Emissions Limitation

Organic Compound (OC) emissions from this emissions unit shall not exceed 27.9 lbs/hr. (This hourly allowable represents the maximum production capacity of this emissions unit; so, no hourly recordkeeping is required to demonstrate compliance.)

Applicable Compliance Method

$$500 \text{ lbs resin/hr} \times 1 \text{ ton}/2000 \text{ lbs} \times 88.58 \text{ lbs styrene/ton of resin} = 22.15 \text{ lbs styrene/hr}$$

Maximum average mold release usage results in OC emissions of 1.7 lbs/hr.

Maximum cleanup material usage results in OC emissions of 4.0 lbs/hr.

$$22.15 \text{ OC lbs/hr} + 1.7 \text{ lbs OC/hr} + 4 \text{ lbs OC/hr} = 27.85 \text{ lbs OC/hr}$$

Therefore, no additional requirements are necessary to show compliance with this limit.

d. Emissions Limitation

The styrene emissions from this emissions unit shall not exceed 16.61 tons/yr.

Applicable Compliance Method

The combined styrene emissions limit for emissions units P007 and P008 is 16.61 tons/yr.

e. Emissions Limitation

The VOC emissions from this emissions unit shall not exceed 19.11 tons/yr.

Applicable Compliance Method

The combined VOC/styrene emissions limit for emissions units P007 and P008 is 16.61 tons/yr.

The facility-wide VOC emissions limit from the use of mold release is 2.5 tons/yr.

$$16.61 \text{ tons VOC/yr} + 2.5 \text{ tons VOC/yr} = 19.11 \text{ tons VOC/yr}$$

f. Emissions Limitation

The OC emissions from this emissions unit shall not exceed 25.11 tons/yr.

Applicable Compliance Method

The combined OC emissions limit for emissions units P007 and P008 is 16.61 tons/yr.

The facility-wide OC emissions limit from the use of mold release is 2.5 tons/yr.

The facility-wide OC emissions limit from the use of cleanup material is 6 tons/yr.

$$16.61 \text{ tons OC/yr} + 2.5 \text{ tons OC/yr} + 6 \text{ tons OC/yr} = 25.11 \text{ tons OC/yr}$$

g. Emissions Limitation

The combined styrene emissions from emissions units P007 and P008 shall not exceed 16.61 tons /yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage.

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping of resin usage found in A.III.2.

h. Emissions Limitation

The combined VOC emissions from emissions units P007 and P008 shall not exceed 16.61 tons /yr. To achieve this limit, the maximum amount of resin usage shall not exceed 375.2 tons/yr, based upon a rolling, 12-month summation of the resin usage. (This limit does not include VOC emissions generated by the use of mold release.)

Applicable Compliance Method

Compliance shall be demonstrated by monitoring and recordkeeping of resin usage found in A.III.2.



shall be taken to be the weight percent volatiles of the uncatalyzed resin. An alternative method may be substituted if agreed to in writing by USEPA. Compliance shall be achieved based on the monitoring and recordkeeping of resin usage as specified in section A.III.1.

c. Operational Limitation

The only cleanup material the permittee shall employ in this facility shall be acetone, which has a density of 6.6 lbs OC/gallon, as applied.

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of acetone usage as specified in section A.III.1.

d. Operational Limitation

The permittee shall operate the dry filtration system whenever this emissions unit is in operation.

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping specified in section A.III.5.

e. Operational Limitation

When emissions unit P008 is being operated, no more than two of the following emissions units may be operated concurrently: P004, P005, P006, and P007.

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of emissions units' operating schedules as specified in section A.III.6.

f. Operational Limitation

The permittee shall utilize Non-atomized Application Equipment in this emissions unit. Non-atomized Application Equipment means the following:

- i. flow coat nozzles for gel coat application equipment;
- ii. flow coat nozzle and chopper chute for resin and glass application equipment; and
- iii. pressure fed roller equipment.

(For further details, see the CFA's "Controlled Spray Handbook dated 9/98".)

Applicable Compliance Method

Compliance shall be achieved based on the monitoring and recordkeeping of the use of Non-atomized Application Equipment as specified in section A.III.1.c.

- g. **Operational Limitation**  
The permittee shall only employ vapor suppressant resins.

**Applicable Compliance Method**

Compliance shall be achieved based on the monitoring and recordkeeping of resin usage as specified in section A.III.1.d.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. 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>
P008 - Spray lay-up gun No. 4	Air Toxic Policy	See Term B.III.1.

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for these five emissions units (P004, P005, P006, P007, and P008) for the emissions of styrene was evaluated based on the actual 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. Using the SCREEN 3.0 model and comparing 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 "worst case" pollutant:

Pollutant: styrene

TLV (ug/m3): 85,200

Maximum Hourly Emission Rate from P004, P005, P006, P007, and P008: 81.66 lbs/hour

Predicted 1-Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 1,792

MAGLC (ug/m3): 2,028 (85,200 ug/m3 divided by 42)

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 previously modeled;
  - b. changes in the composition of the materials used, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that is 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.).
2. 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 (V)(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 shows the results of the application of the "Air Toxic Policy" for the change.

#### IV. Reporting Requirements

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None